

THE WELLCOME  
RESEARCH  
INSTITUTION  
LONDON, ENGLAND



EXHIBITS AT THE  
CHICAGO EXPOSITION  
1934

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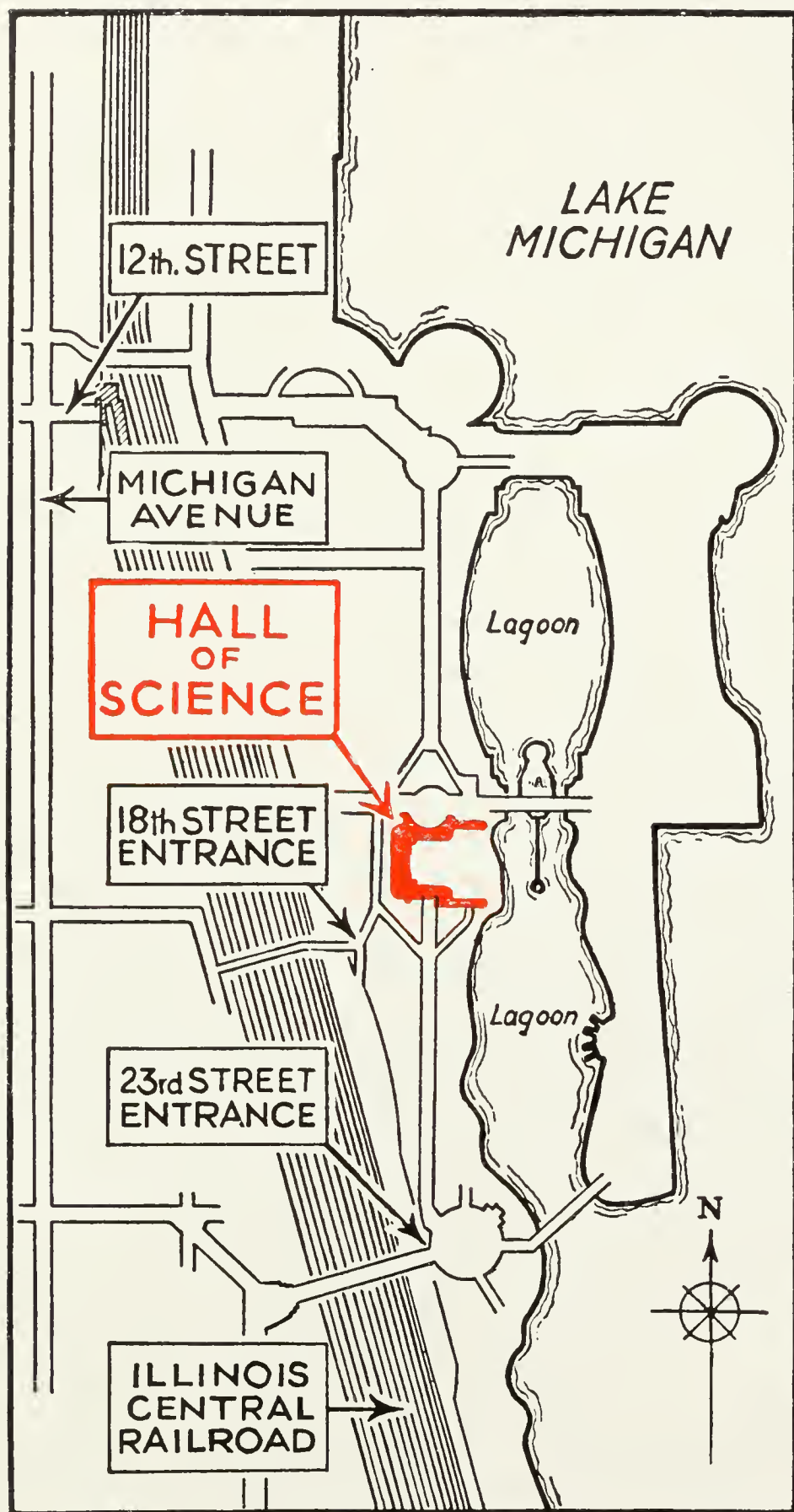


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# PLAN OF CHICAGO EXPOSITION



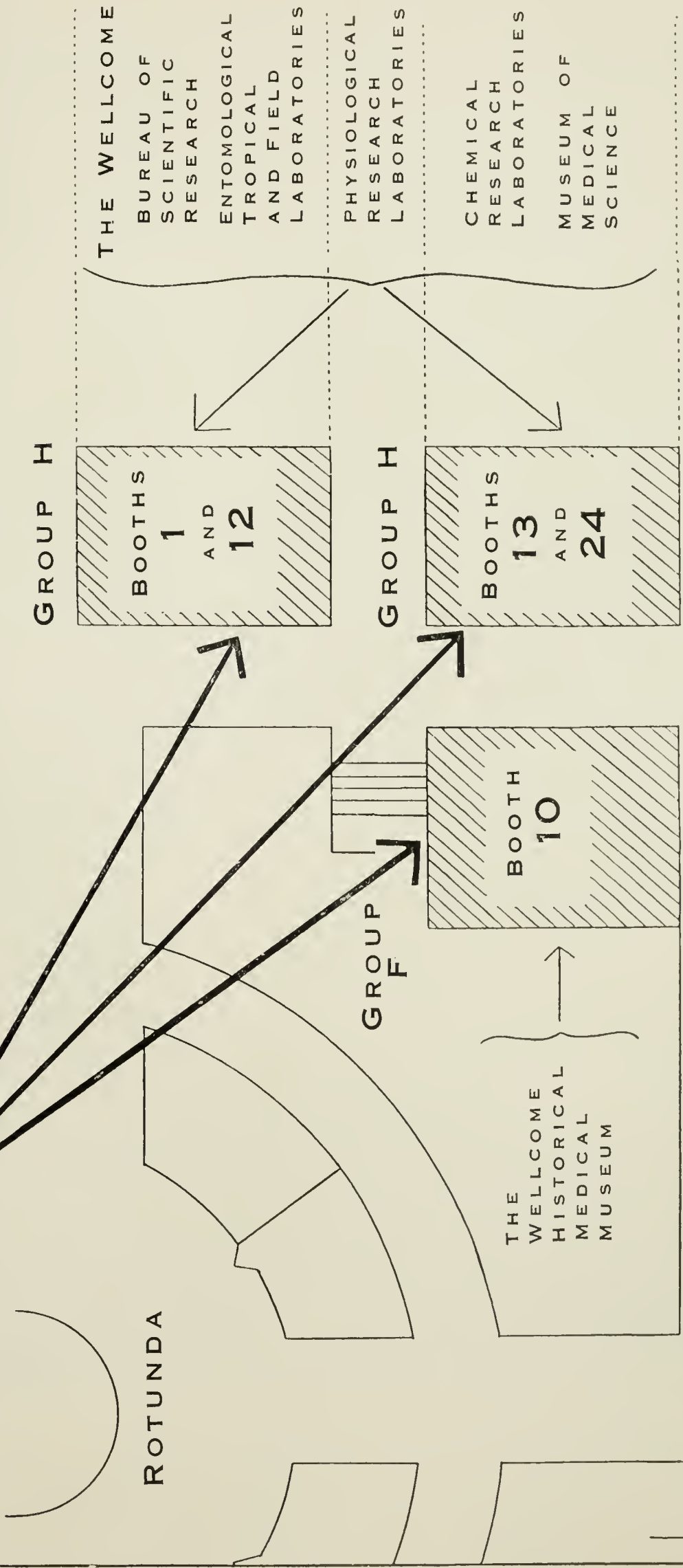
KEY PLAN to part of CHICAGO EXPOSITION showing situation of HALL OF SCIENCE in which Exhibits of THE WELLCOME RESEARCH INSTITUTION are located

## SECTIONAL INDEX

	PAGE
WELLCOME RESEARCH INSTITUTION	
Description ... ..	25
Exhibits ... ..	41
WELLCOME BUREAU OF SCIENTIFIC RESEARCH	
Description ... ..	29
Researches ... ..	30
Exhibits ... ..	42
WELLCOME ENTOMOLOGICAL FIELD LABORATORIES	
Description ... ..	45
Researches ... ..	45
Exhibits ... ..	45
WELLCOME PHYSIOLOGICAL RESEARCH LABORATORIES	
Description ... ..	47
Researches ... ..	49
Exhibits ... ..	50
WELLCOME CHEMICAL RESEARCH LABORATORIES	
Description ... ..	51
Researches ... ..	51
Exhibits ... ..	53
WELLCOME MUSEUM OF MEDICAL SCIENCE	
Description ... ..	59
Exhibits ... ..	65
WELLCOME HISTORICAL MEDICAL MUSEUM	
Description ... ..	73
Exhibits ... ..	79



# THE WELLCOME RESEARCH INSTITUTION, LONDON (ENG.)



HALL OF SCIENCE—GROUND FLOOR  
SECTION OF SCIENTIFIC AND HISTORICAL MEDICAL EXHIBITS  
CHICAGO EXPOSITION, 1934



“THE ASSOCIATION OF MUSEUMS  
WITH RESEARCH INSTITUTIONS  
IS AN IMPORTANT FEATURE OF  
MODERN SCIENTIFIC WORK.”

“SANS LABORATOIRES LES  
SAVANTS SONT DES SOLDATS  
SANS ARMES.”

—*PASTEUR.*

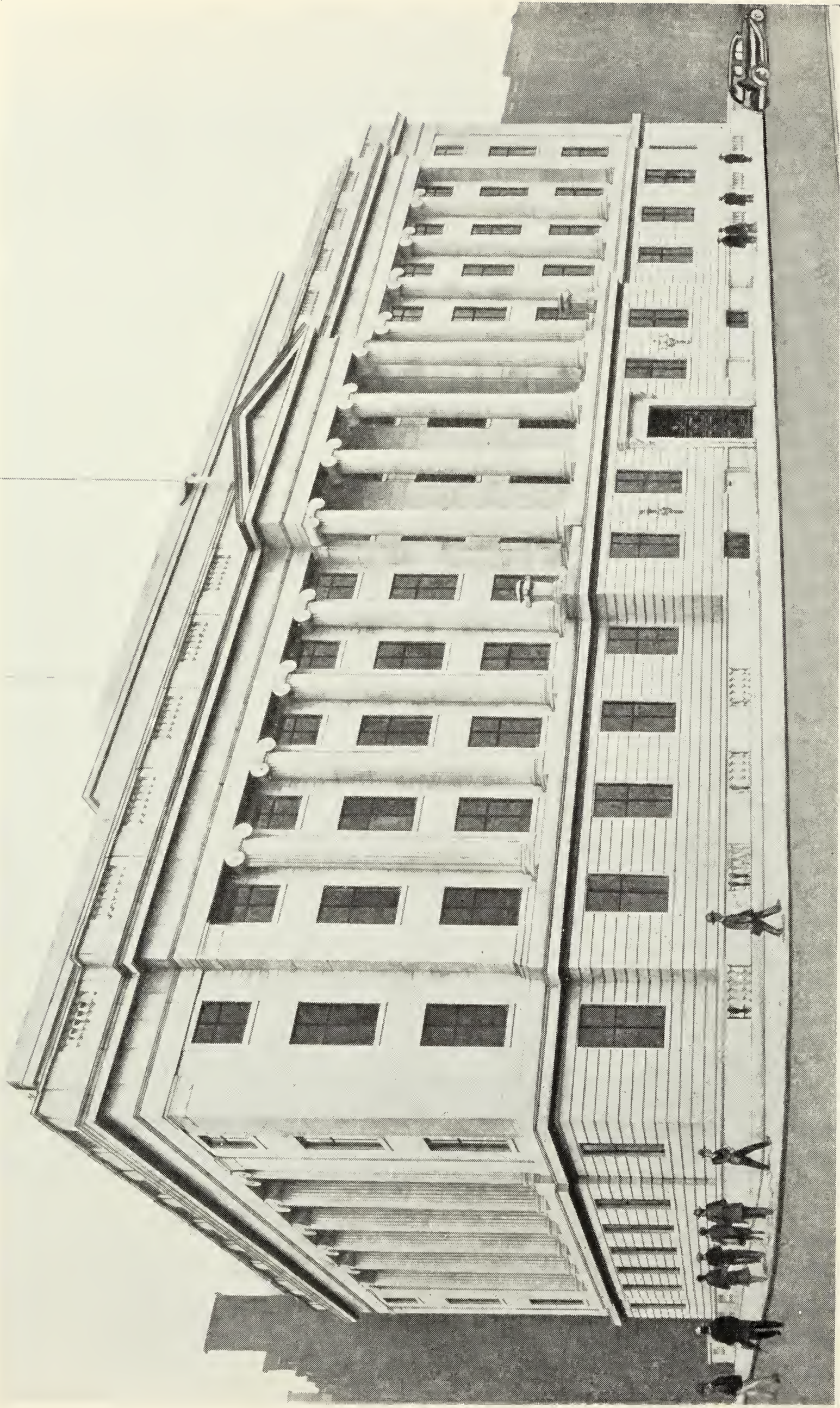
“Men of science without laboratories  
are as soldiers without arms.”





MAIN STAIRWAY FROM ENTRANCE HALL  
THE WELLCOME RESEARCH INSTITUTION





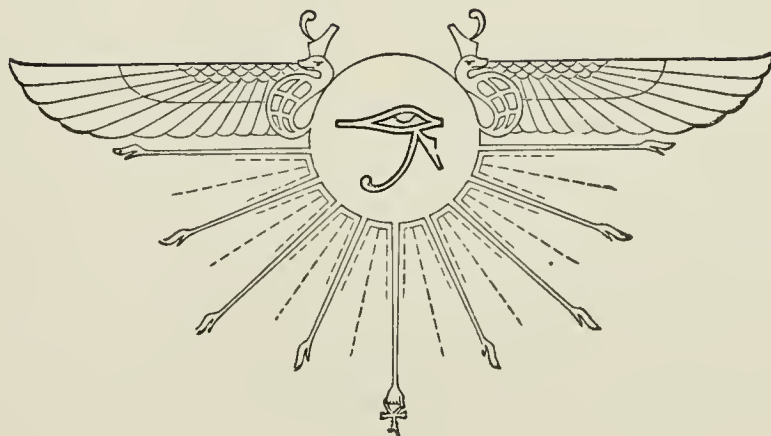
THE WELLCOME RESEARCH INSTITUTION, 183-193, EUSTON ROAD, N.W.1, LONDON (ENG.)

THIS BUILDING MEASURES 225 X 135 FEET



THE WELLCOME  
RESEARCH INSTITUTION  
AND THE AFFILIATED  
RESEARCH LABORATORIES  
AND  
MUSEUMS

FOUNDED BY  
SIR HENRY WELLCOME  
LL.D., D.Sc., F.R.S.



THE WELLCOME FOUNDATION LTD.  
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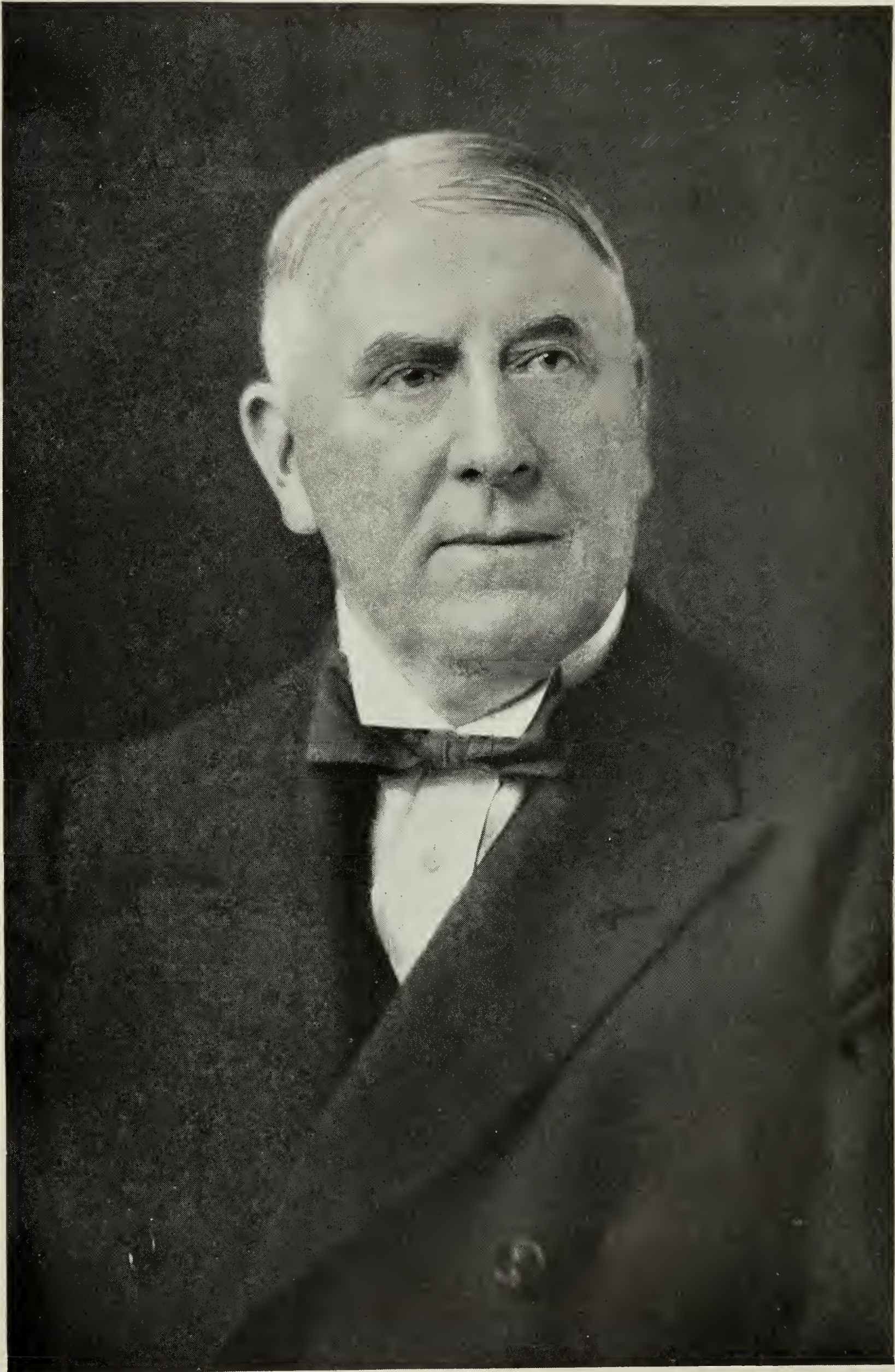
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/ 261

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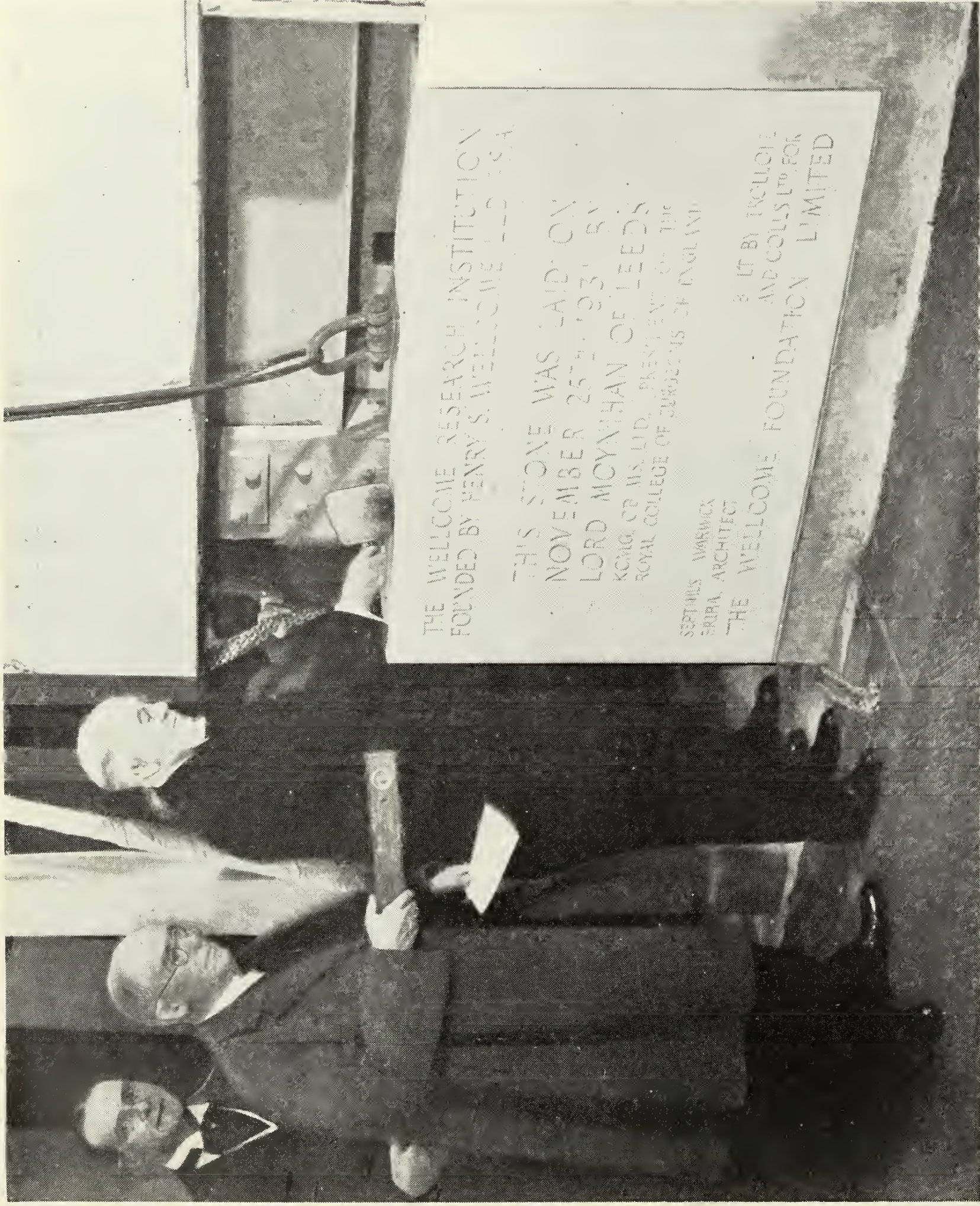




THE RT. HON. LORD MOYNIHAN, K.C.M.G., C.B., M.S., LL.D.  
President of the Royal College of Surgeons of England

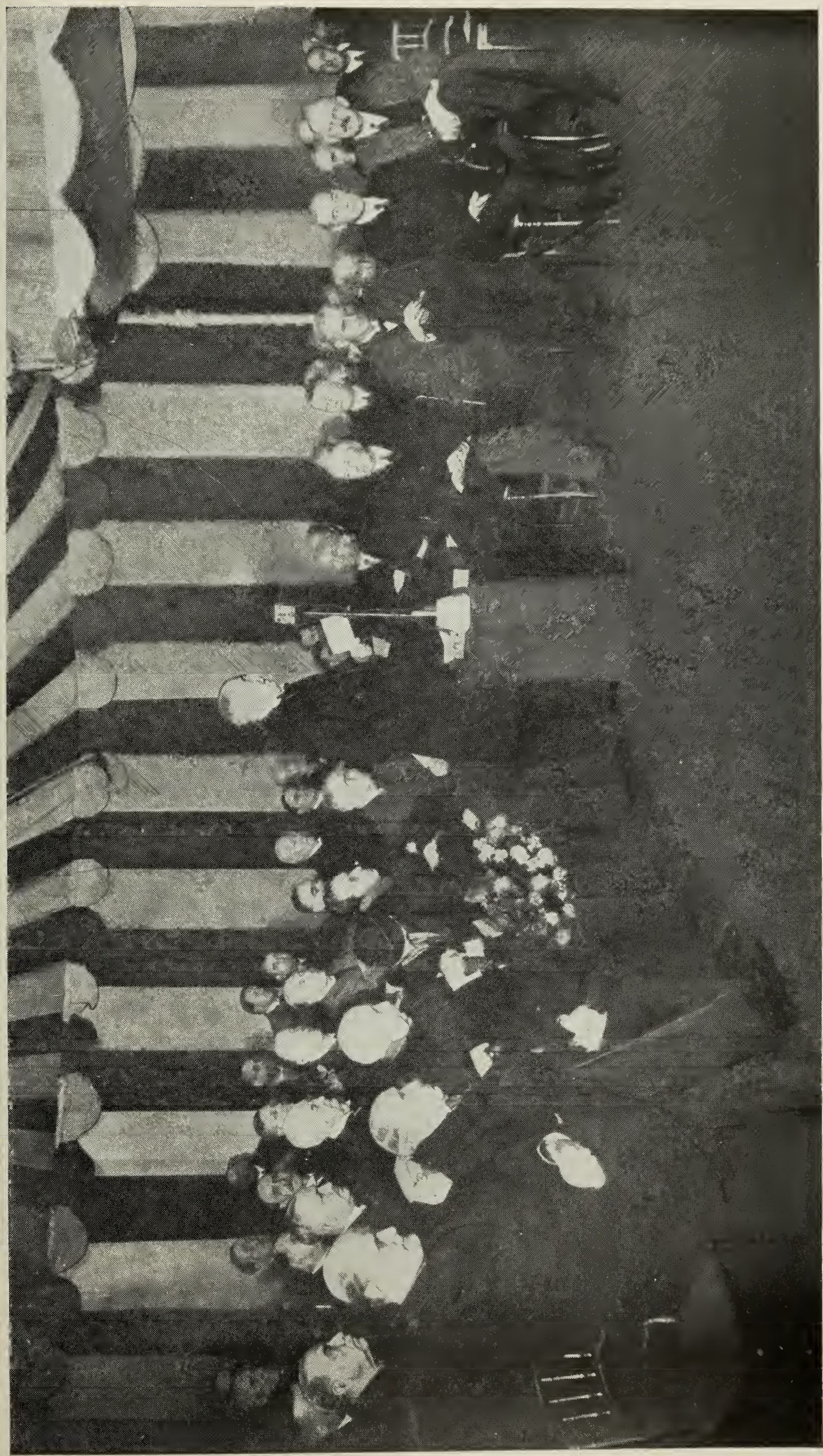


LORD MOYNIHAN  
LAYING THE  
CORNER STONE  
OF THE  
WELLCOME RESEARCH  
INSTITUTION



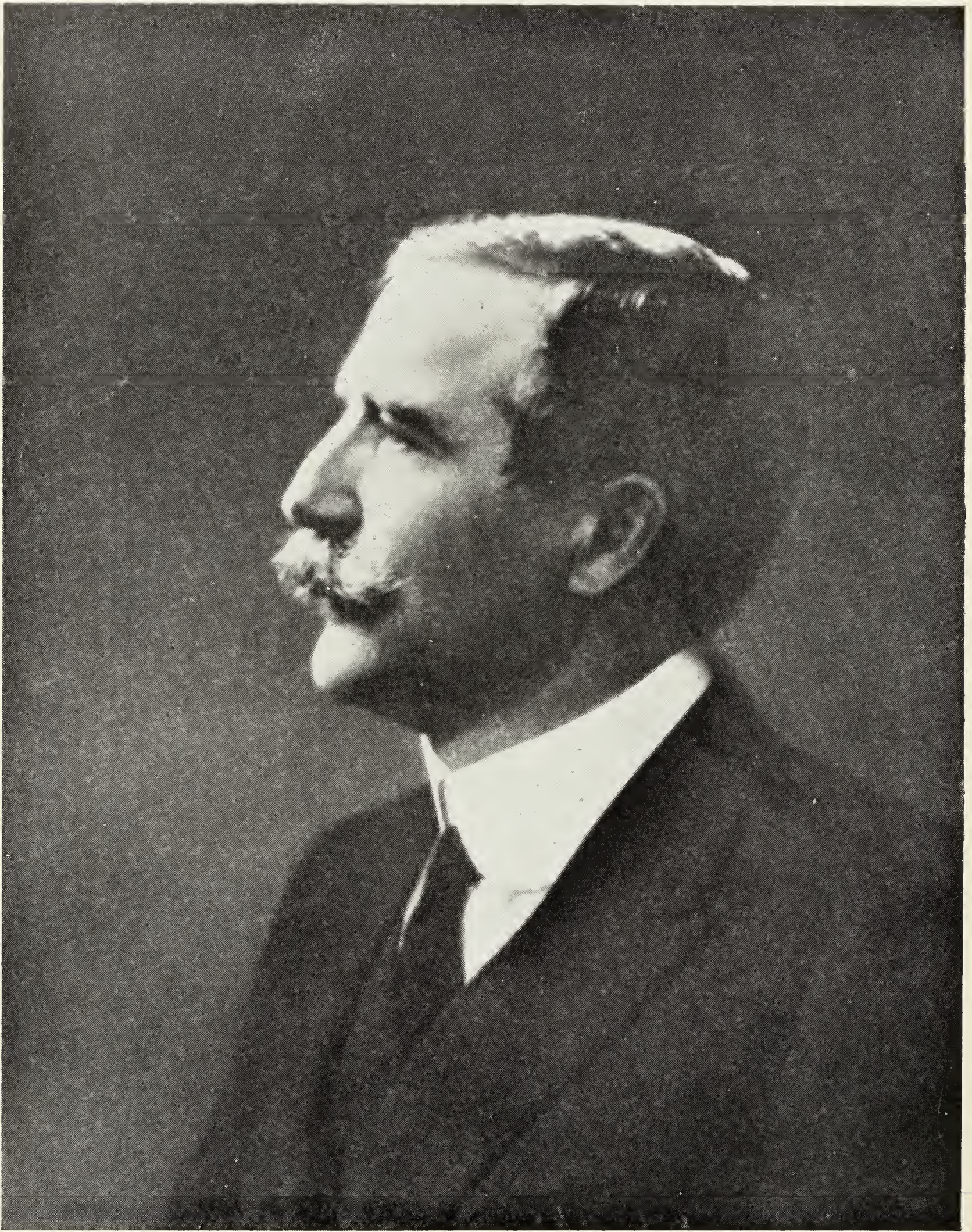
RIGHT TO LEFT—LORD MOYNIHAN, DR. HENRY S. WELLCOME  
MR. SEPTIMUS WARWICK





LORD MOYNIHAN DELIVERING HIS ADDRESS  
AFTER LAYING THE CORNER STONE OF THE WELLCOME RESEARCH INSTITUTION





SIR HENRY WELLCOME, LL.D., D.Sc., F.R.S.



CEREMONY  
OF  
LAYING THE CORNER STONE  
OF THE  
WELLCOME RESEARCH INSTITUTION  
LONDON

BY  
THE RT. HON. LORD MOYNIHAN OF LEEDS  
K.C.M.G., C.B., M.S., LL.D.

PRESIDENT OF THE ROYAL COLLEGE OF  
SURGEONS OF ENGLAND

WEDNESDAY, NOVEMBER 25TH, 1931

[*Extract from Press Report*]

THE ceremony of laying the Corner Stone of The Wellcome Research Institution was performed by Lord Moynihan on Wednesday, November 25th, in the presence of a large and representative company.

DR. (now SIR HENRY) WELLCOME, in his Introductory Remarks, said: "Your Excellencies, my Lords, Ladies and Gentlemen: The project of constructing this building has long been studied and planned by me. I have been very fortunate in finding a master mind in Mr. Warwick, the famous architect. His architectural ideals correspond with my own, and his sense of the essential features and adaptations of a building for the purposes of the various departmental laboratories and museums complied with our needs.

I have a strong belief in the inspiring influence of graceful, symmetrical architecture, and I have found by experience that artistic environment is not incompatible with the practical operations of scientific research, but, on the contrary, stimulates the mind and facilitates the solution of difficult problems. Whenever I enter the British Museum I feel stimulated by the sublime architectural expression of that noble building. Special tribute



should be paid to Mr. Septimus Warwick for his achievement in creating this stately building. Great credit is also due to Messrs. Trollope & Colls, the builders, who have carried out the work of construction with the utmost precision and fidelity.

I have made my remarks very brief, as we are anxious to hear the address of The Rt. Hon. Lord Moynihan, President of the Royal College of Surgeons of England, who has kindly consented to lay the Corner Stone.

Mr. George E. Pearson, the Deputy-Governing Director of The Wellcome Foundation, will now assist me in placing this casket within the Corner Stone."

(A bronze casket containing historical records of the Wellcome Research Laboratories and Museums was then placed within the Stone.)

THIS CASKET, INSERTED IN THE CORNER STONE OF THE WELLCOME RESEARCH INSTITUTION ON THE 25TH NOVEMBER 1931 LAID BY LORD MOYNIHAN OF LEEDS K.C.M.G. C.B. M.S. LL.D. PRESIDENT OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND, CONTAINS HISTORICAL RECORDS OF THE AFFILIATED RESEARCH LABORATORIES AND MUSEUMS FOUNDED BY HENRY S. WELLCOME, LL.D. F.S.A. GOVERNING-DIRECTOR OF THE WELLCOME FOUNDATION LIMITED, LONDON

INSCRIPTION ENGRAVED ON LID OF BRONZE CASKET

Mr. SEPTIMUS WARWICK: Lord Moynihan, I have much pleasure in presenting to you this silver trowel for the purpose of laying the Corner Stone.

(The Corner Stone was then placed in position.)

LORD MOYNIHAN, having duly laid the stone and tested it with the level, announced: I declare this Corner Stone well and truly laid.

Mr. WALLACE ELLIOTT (Managing Director, Messrs. Trollope & Colls): Dr. Wellcome, I ask you to accept this maul and level, which have been used by Lord Moynihan



in laying this Corner Stone. These tools, which are symbols of the ancient and honourable art of masonry, have served their purpose in bringing into existence this building which is a monument of the magnificent services you have rendered to science and humanity, and I hope that you may for many years continue to live and prosper in your good works.

#### THE ADDRESS

LORD MOYNIHAN: Dr. Wellcome, your Excellencies, my Lords, Ladies and Gentlemen: To-day we lay the corner stone to a life's work. For 40 years Dr. Wellcome has devoted his best energies, and has bestowed his most lavish gifts, with the intention of creating a great research organisation and founding this institution for medical research. May I briefly recite to you some of his activities during that time. In the year 1894 he founded in London his Laboratory for Physiological Research, which was followed two years later by his Laboratory for Chemical Research.

On the recapture of the Sudan by Kitchener, Dr. Wellcome was one of the first civilians to visit that country, and he there saw, and for some time studied, conditions as they then were; and he found great opportunities for public service. It was in the year 1900 that he founded The Wellcome Tropical Research Laboratories in connexion with the Gordon Memorial College at Khartoum. The first Director of these Laboratories was Sir Andrew Balfour, who served there for ten years. Attached to that research institution Dr. Wellcome equipped a floating research Laboratory, which cruised through the waterways of the Nile and its tributaries in the Sudan, giving the opportunity for continuous research, and for carrying the benefits of medical research to the people who live in far distant parts of that country.

Dr. Wellcome's activities continued also in this country. In the year 1913 he founded in London the Bureau of



Scientific Research, and the Historical Medical Museum. In 1914, he founded the Museum of Medical Science, including Tropical Medicine and Hygiene, and in 1920 he founded the Entomological Field Laboratory.

All these affiliated Research Institutions suffered, however, under one great disadvantage, which all research students will at once appreciate : they were separate from one another, giving no opportunity for that hour-to-hour, or minute-to-minute, consultation which is one of the great advantages of having collective research under the one roof ; but from to-day we see the possibility of that difficulty being overcome. Under the roof of this building the following subjects are to be studied : tropical medicine and hygiene, medical zoology, entomology and parasitology ; there will be twenty-four or more laboratories, including physiological, chemical and various other laboratories. In addition, there will be the Historical Medical Museum, and a Museum of Modern Medical Science.

I think you will agree that that is a formidable and very impressive list. (Hear, hear.)

Dr. Wellcome's activities, however, have not been confined to this country ; for I have recently been reading an account of the proceedings when he gave great help towards securing the foundation of the Gorgas Memorial Tropical Research Laboratories on the Panama Canal.

One of the conspicuous features of Dr. Wellcome's life-work has been at once its relevance and its opportunism. In all his investigations of tropical diseases he begins in an almost virgin country, and the harvest gathered has been such that not only have many lives been saved and much suffering spared, but vast tracts of country have, for the first time, been made fit for human habitation.

The great need of medicine to-day lies in the direction of increasing the opportunities for medical research, and



not less, I think, in the opportunities for creating those competent to undertake medical research.

Physical observation alone—from the time of Hippocrates through our great students, Sydenham, Addison and James Mackenzie—has revealed many secrets which have been so long hidden in connexion with diseases that lay within the orbit of pure investigation, and the conquests of mere observation have been innumerable and of a value beyond all reckoning. Upon it a virile and beneficent art has been built, to the infinite advantage of mankind.

It is within living memory that this most exquisite art has found its opportunities extended and its thought affected by the encouragement and adoption of methods which are seeking to change a practical art into an applied science. Difficulties, of course, have been found all along the way, but experiment in medicine is for ever inevitable.

As a result of experiment in medicine, we are happily gradually replacing anatomy by physiology, and if disease is, in many respects, merely altered function, then we are about to create a science new to humans, of comparative function in health and in disease. But experiment has done even more for us than that. I think it has strengthened the arm of medicine, and it has made the tests more severe for the acceptance of evidence which has been derived by the methods of observation.

Medicine depends, of course, not only for its present stability but for its future advance, upon a large number of ancillary sciences. Those sciences are to be studied in this building. The effect, therefore, on medicine will be considerable, but I hope something better even than that will come out of the work done in this Institution and similar institutions; that is, to create in the minds of the leaders of the profession what my friend



Sir Walter Morley Fletcher would like to call "The Religion of Research."

I hope the day is not far distant when those who are to serve upon the teaching staffs of hospitals throughout this country will be permeated by "The Religion of Research," and, in time to come, all members of the teaching staffs will themselves have undergone, in institutions similar to this, a discipline of research.

To-day, in your name, I would like to offer our homage to the man who has made this Institution possible (applause), and by his constant thought, and by his most lavish generosity has done as much, I think, as any man has ever done in this or any other country, to make it possible for those who work within our profession to advance both the science and the art of medicine. Dr. Wellcome, for myself and in the name of us all, I offer you our most grateful homage.

Dr. WELLCOME: Lord Moynihan, I am deeply moved by your generous expressions regarding the success of my pioneer efforts and life-work in the field of Medical Research. With grateful heart and deep appreciation I acknowledge your kind tribute. Great credit for the success of my various undertakings is due to the expert chiefs and staffs who have faithfully carried out my plans and purposes. I want to say that I have been fortunate throughout in securing the services of talented young men with good technical education, who with fidelity and zeal have entered heart and soul into the work and developed under the guidance of the highly qualified Directors of my several Research Institutions.

I want especially to express my sincere thanks to you, Lord Moynihan, for having honoured us by your presence to-day and by performing the ceremony of laying the Corner Stone of this Institution.



## GUESTS

Among those present were :

The Rt. Hon. Lord Moynihan, K.C.M.G., C.B., M.S., LL.D., President of the Royal College of Surgeons of England ; Lady Moynihan ; Mrs. Wynn Parry.

His Excellency The Chilean Ambassador, Señor Don Enrique Villegas ; The Greek Minister, M. Demetrius Caclamano ; The Egyptian Minister, Dr. Hafez Afifi Pasha ; The Cuban Minister, Señor Dr. Don Guillermo Patterson ; Dr. Hugo Rast, representing the Swiss Minister ; The High Commissioner for Southern Rhodesia, The Hon. J. W. Downie, C.M.G. ; The Acting High Commissioner for Newfoundland, Mr. D. James Davies, C.B.E., J.P., B.Sc., F.I.C. ; The Agent-General for South Australia, The Hon. Sir Newman Barwell, K.C.M.G., LL.B. ; The Agent-General for British Columbia, The Hon. F. P. Burden, B.A., B.C.L.S. ; The Agent-General for Alberta, Mr. Hugh M. Baker ; The Agent-General for Ontario, Mr. W. C. Noxon ; The Agent-General for Quebec, The Hon. L. J. Lemieux, M.D. ; The Agent-General for Victoria, Mr. Walter Leitch, C.B.E. ; The Acting Agent-General for Queensland, Mr. H. L. Pike ; The Acting Agent-General for Tasmania, Mr. H. W. Ely, I.S.O.

General Sir Reginald Wingate, Bt., G.C.B., G.C.V.O., K.C.M.G., G.B.E., C.B., D.S.O., formerly High Commissioner for Egypt, and Sirdar and Governor-General of the A. E. Sudan ; The Rt. Hon. Lord Macmillan, P.C., K.C., M.A., LL.B., F.R.S.E., LL.D., Chairman of the Court, University of London ; Sir E. T. F. Crowe, K.C.M.G., Comptroller-General, Department of Overseas Trade ; Sir Thomas Little Heath, K.C.B., K.C.V.O., Sc.D., D.Sc., Litt.D., F.R.S. ; Col. Sir Courtauld Thomson, K.B.E., C.B., M.A., Vice-Chairman, University College Hospital ; Lt.-Col. Sir David Prain, I.M.S., C.M.G., C.I.E., M.A., M.B., LL.D., F.R.S.E., F.L.S., F.Z.S., M.R.I.A., F.R.S., Chairman, Advisory Council, Plants and Animal Products, Imperial Institute ; Sir Robert Robertson, K.B.E., M.A., D.Sc., LL.D., F.R.S., Government Chemist, Treasurer, Royal Institution ; Sir Robert A. Hadfield, Bt., J.P., D.Sc., D.Met., M.I. Mech. E., M.I.E.E., Mem. I.S.I., F.Phys.S., F. Inst. P., M. Inst. C.E., F.I.C., F.R.S., Vice-President, Federation of British Industries ; Sir Andrew Taylor, J.P., F.S.A., R.C.A., F.R.I.B.A., Member of Senate, University of London ; Sir Sidney Low ; Sir Howard D'Egville, K.B.E. ; Sir Robert W. Hamilton, M.A., F.R.G.S., M.P., Member of Council of African Society.

Sir St. Clair Thomson, M.D., F.R.C.P., F.R.C.S., Ex-President, Royal Society of Medicine ; Sir William Henry Willcox, K.C.I.E.,



C.B., C.M.G., B.Sc., M.D., F.I.C., Medical Adviser to Home Office ; General Sir H. B. Fawcus, K.C.B., C.M.G., D.S.O., D.C.L., K.H.P., Director-General, Army Medical Services ; Sir Charles Gordon-Watson, K.B.E., C.M.G., F.R.C.S., Member of Council, Royal College of Surgeons.

Sir John W. Thomson-Walker, D.L., M.B., C.M., F.R.C.S., President-Elect, V. Congress of Société Internationale d'Urologie ; Sir Leslie MacKenzie, M.A., M.D., LL.D., F.R.C.P.E., F.R.S.E., General Medical Council ; Sir Robert A. Bolam, O.B.E., M.D., LL.D., B.S., F.R.C.P., General Medical Council, Ex-Chairman, British Medical Association ; H. Morley Fletcher, M.A., M.D., F.R.C.P., President, Section of Medicine, Royal Society of Medicine ; Lt.-Col. S. P. James, M.D., M.R.C.S., L.R.C.P., D.P.H., Medical Officer and Adviser, Tropical Diseases, Ministry of Health ; V. Warren Low, C.B., M.D., B.S., F.R.C.S., L.R.C.P. ; Professor W. W. Jameson, M.A., M.D., F.R.C.P., D.P.H., Dean, London School of Hygiene and Tropical Medicine ; Professor R. T. Leiper, M.D., D.Sc., F.R.S., Director, Division of Medical Zoology, London School of Hygiene and Tropical Medicine.

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C. M. Wenyon, C.M.G., C.B.E., M.B., B.S., B.Sc., F.R.S., Director-in-Chief, Wellcome Bureau of Scientific Research ; S. H. Daukes, O.B.E., B.A., M.D., D.P.H., D.T.M. & H., Director, Wellcome Museum of Medical Science ; Major H. C. Brown, C.I.E., M.B., B.Ch., D.T.M. & H., I.M.S. (retd.) ; M. E. MacGregor, M.A., D.Sc., Entomologist, Wellcome Field Laboratory ; C. A. Hoare, D.Sc. ; G. W. M. Findlay, O.B.E., Sc.D., M.D., Ch.B. ; J. C. Broom, M.D., Ch.B. ; P. R. Colwill, F.C.I.S.

R. A. O'Brien, C.B.E., M.D., B.S., D.P.H., Director, Wellcome Physiological Research Laboratories ; J. W. Trevan, M.B., B.S., B.Sc., M.R.C.P. ; A. C. White, M.B., Ch.B., Ph.D., F.R.S.E. ; H. J. Parish, M.D., M.R.C.P.E., D.P.H. ; A. T. Glenney, B.Sc. ; C. G. Pope, B.Sc. ; H. Antrobus, M.A.

T. A. Henry, D.Sc., Director, Wellcome Chemical Research Laboratories ; H. Paget, M.A. ; W. H. Gray, M.Sc. ; T. M. Sharp, M.Sc. ; J. A. Goodson, F.I.C. ; W. Solomon, B.Sc.

L. W. G. Malcolm, M.Sc., F.R.S.E., Conservator, Wellcome Historical Medical Museum ; Capt. P. Johnston-Saint, M.A., F.R.S.E., Foreign Secretary, Wellcome Historical Medical Museum ; S. Moorat, M.A. ; A. L. Dean, F.C.I.S. ; A. D. Lacaille, B. ès L., F.S.A. Scot. ; Mr. G. Pender-Davidson ; Major J. S. Uribe ; A. W. Haggis, F.R.M.S.

H. A. D. Jowett, D.Sc. ; Leslie Moore, A.C.A., Secretary, Wellcome Foundation Ltd. ; E. F. Linstead, Ph.C. ; C. Gordon Oakes, M.P.S. ; J. Dowdeswell, Ph.C. ; S. Smith, B.Sc., Ph.D., F.I.C. ; F. H. Lees, F.I.C. ; E. W. Garnham, L.R.I.B.A.



EXTRACTS FROM PRESS REPORTS  
OF PROCEEDINGS

*The Times* (London):

“In his address, Lord Moynihan paid tribute to the 40 years’ work of Dr. Wellcome in promoting medical research. Dr. Wellcome’s work (he said) had always been notable for its relevance and its opportunism. To advance both the science and the art of medicine, Dr. Wellcome had done as much as any man in this or any other country.”

*The Morning Post* (London):

“Striking tribute to the work of the medical research institutes founded by Dr. H. S. Wellcome was paid by Lord Moynihan, President of the Royal College of Surgeons, when he laid the corner-stone of the Wellcome Foundation Building, which will contain the three research institutes and two museums founded in London by Dr. Wellcome. The outstanding achievements of these research institutes include important discoveries concerning the organisms responsible for tropical dysentery, methods of immunisation against diphtheria, and indications of a possible method of preventing yellow fever.”

*Daily Telegraph* (London):

“Lord Moynihan, President of the Royal College of Surgeons, laid the foundation-stone of the Wellcome Foundation Research Centre in Euston Road, which, when completed, will be one of the largest research centres for medicine in the world.”

*British Medical Journal* (London):

“The stone-laying ceremony took place in the presence of a large company, including representatives of several foreign Legations, High Commissioners for the Dominions, representatives of various bodies having imperial interests, of public health authorities and of London University, and members of the medical profession. The building will be a noteworthy piece of London architecture.”



*The Lancet* (London) :

“ The ceremony of laying the corner-stone of the Wellcome Research Institution was performed by Lord Moynihan in the presence of a large and representative company. The building is of a severely classical style exteriorly, while inside it is to contain all the accommodation and amenities necessary for complete research laboratories and museums. Mr. Septimus Warwick, the architect, has already won warm approval for the design, which was exhibited this year in the Royal Academy.”

*Nature* (London) :

“ As Lord Moynihan remarked, in laying the corner-stone of the Wellcome Research Institution, the ceremony might well be regarded as referring to the corner-stone of a long life's work. By placing the Museum of Medical Science, including tropical medicine and hygiene, and the Historical Medical Museum under one roof, there is no doubt that in London there will be a combination which will be unequalled in the world.”

*Tropical Life* (London) :

“ For those living in this country or elsewhere, with the ever-watchful police, with ambulances, hospitals, etc., refusing to allow you to remain ill if they can help it, the work carried out by the now amalgamated activities of Dr. Wellcome's various ‘children,’ under the name of the Wellcome Research Institution, is wonderful enough, but you must go into the unknown and uncivilised places abroad, or even on tropical estates and stations where help is not at hand to pounce on you if you totter, to realise fully what good the work of these various laboratories can do and are doing.”

*The Medical Press* (London) :

“ At the ceremony a bronze casket containing the historical records of the Wellcome Research Laboratories



and Museums was inserted in the corner stone, and Lord Moynihan paid tribute to the forty years' work of the founder, Dr. Henry S. Wellcome, in promoting medical research. In 1894, he founded a laboratory for physiological research here, followed by one for chemical research. When Khartoum was captured by Kitchener, Dr. Wellcome founded a research institute there for tropical diseases ; in 1913, he opened in London the Bureau of Scientific Research and the Historical Medical Museum ; in 1914, the Museum of Medical Science ; and in 1920, the Entomological Field Laboratory."

*Medical World* (London) :

" Still another fine building is rising to grace the Metropolis for the advancement of our art by way of research, all through the munificence of a private benefactor—Dr. H. S. Wellcome. For over forty years he has made the profession his debtor in countless ways ; this latest evidence of his interest in everything pertaining to physic is intended to house nearly all the institutions in and about London that have sprung from his scientific and antiquarian enthusiasm."

*Pharmaceutical Journal* (London) :

" The President of the Royal College of Surgeons, the Rt. Hon. Lord Moynihan, K.C.M.G., C.B., M.S., LL.D., laid the corner stone of the new building, which will furnish the additional accommodation which is required owing to the recent extensive development of these research laboratories and museums, and will provide facilities further to co-ordinate their activities. It will be provided with the most modern scientific research equipment."

*Chemist and Druggist* (London) :

" The corner stone of the new building in course of erection for the Wellcome Research Institution at the



corner of Gordon Street and Euston Road, was laid by Lord Moynihan, President of the Royal College of Surgeons. Lord Moynihan, after declaring the stone well and truly laid, said that for forty years Dr. Wellcome had devoted his best energies, and had bestowed his most lavish gifts, with the intention of creating a great research institution, and founding an institute for medical research."

*Chemical Age* (London) :

"It is intended to maintain the Wellcome Museum of Medical Science, with its special exhibits covering tropical medicine and hygiene, upon the ground floor of the new building, with administrative offices and lecture-rooms on the basement floors. University classes have made constant use of the old Museum together with many general practitioners and consultants, and the extension has been made principally to enable the teaching facilities of the Museum and the Wellcome Bureau of Scientific Research, which it serves, to be extended."

*Chemistry and Industry* (Journal of the Society of Chemical Industry, London) :

"Lord Moynihan, in the course of his address, said that on behalf of those present he would like to offer homage to the man who had made that institution possible, and by his constant thought and by his most lavish generosity, had done as much as any man had ever done in this country to make it possible for those who worked within this profession to advance both the science and art of medicine."

*West Africa* (London) :

"The recent laying of the corner stone of the new Wellcome Research Institution building by Lord Moynihan, President of the Royal College of Surgeons, marks a further stage in the great work carried out for scientific research by Dr. H. S. Wellcome."



# THE WELLCOME RESEARCH INSTITUTION

During many years The Wellcome Foundation Ltd. has maintained medical and chemical research laboratories and museums. Developments in the operations and scope of these institutions necessitated extension and co-ordination of their activities.

With this object in view the Foundation has constructed a new Research Building which forms the headquarters of The Wellcome Research Institution, embracing the following affiliated Research Laboratories and Museums :—

BUREAU OF SCIENTIFIC RESEARCH

ENTOMOLOGICAL FIELD LABORATORIES

PHYSIOLOGICAL RESEARCH LABORATORIES

CHEMICAL RESEARCH LABORATORIES

MUSEUM OF MEDICAL SCIENCE

HISTORICAL MEDICAL MUSEUM

In this building accommodation and the most modern scientific equipment are provided for all the above except The Physiological Research Laboratories, which are located at Langley Court, Beckenham, Kent (Eng.), with grounds of more than 100 acres of park-land ;



and the Entomological Research Field Laboratories, which are situated in spacious open country at Claremont, Esher, Surrey (Eng.).

## THE BUILDING

The building has nine floors and occupies a ground area measuring 225 feet by 135 feet facing on three thoroughfares.

The architecture is of the Grecian-Ionic order. On the main façade, which fronts on the Euston Road, there are twelve Ionic columns. The central four columns are free standing, and are surmounted by a pediment, from each side of which extends a balustrade.

The building is of Portland stone. The main entrance doors, vestibule doors, and the doors between the galleries on the upper floors, are all of bronze, as are also the balustrade railings and gates, lift cars, garage doors, windows, electrical fittings, door frames, hand rails and radiator grilles.

The internal appointments and equipments have been designed to afford every facility for efficient working. The heating and ventilating systems are of the most scientific and modern types, maintaining adequate ventilation and uniform room temperature. The auditorium, with a seating capacity of 500, has been designed to attain a high acoustic efficiency.



THE  
WELLCOME RESEARCH INSTITUTION  
Embracing the following affiliated Research Laboratories  
and Museums :

THE BUREAU OF SCIENTIFIC RESEARCH  
Founded 1913.

The study and investigation of medical problems,  
more particularly in their relation to tropical medicine  
and hygiene. *(Pages 29-40)*

AFFILIATED LABORATORIES AND MUSEUMS  
THE ENTOMOLOGICAL FIELD LABORATORIES  
Founded 1920.

Researches into the life-history and habits of noxious  
insect pests. *(Page 45)*

THE PHYSIOLOGICAL RESEARCH LABORATORIES  
Founded 1894.

Therapeutic investigations in Bacteriology, Physiology,  
Pharmacology, Serology and Veterinary Medicine.  
*(Pages 47-50)*

THE CHEMICAL RESEARCH LABORATORIES  
Founded 1896.

Chemical investigations and researches, particularly in  
connexion with organic, organo-metallic and synthetic  
medicaments. *(Pages 51-54)*

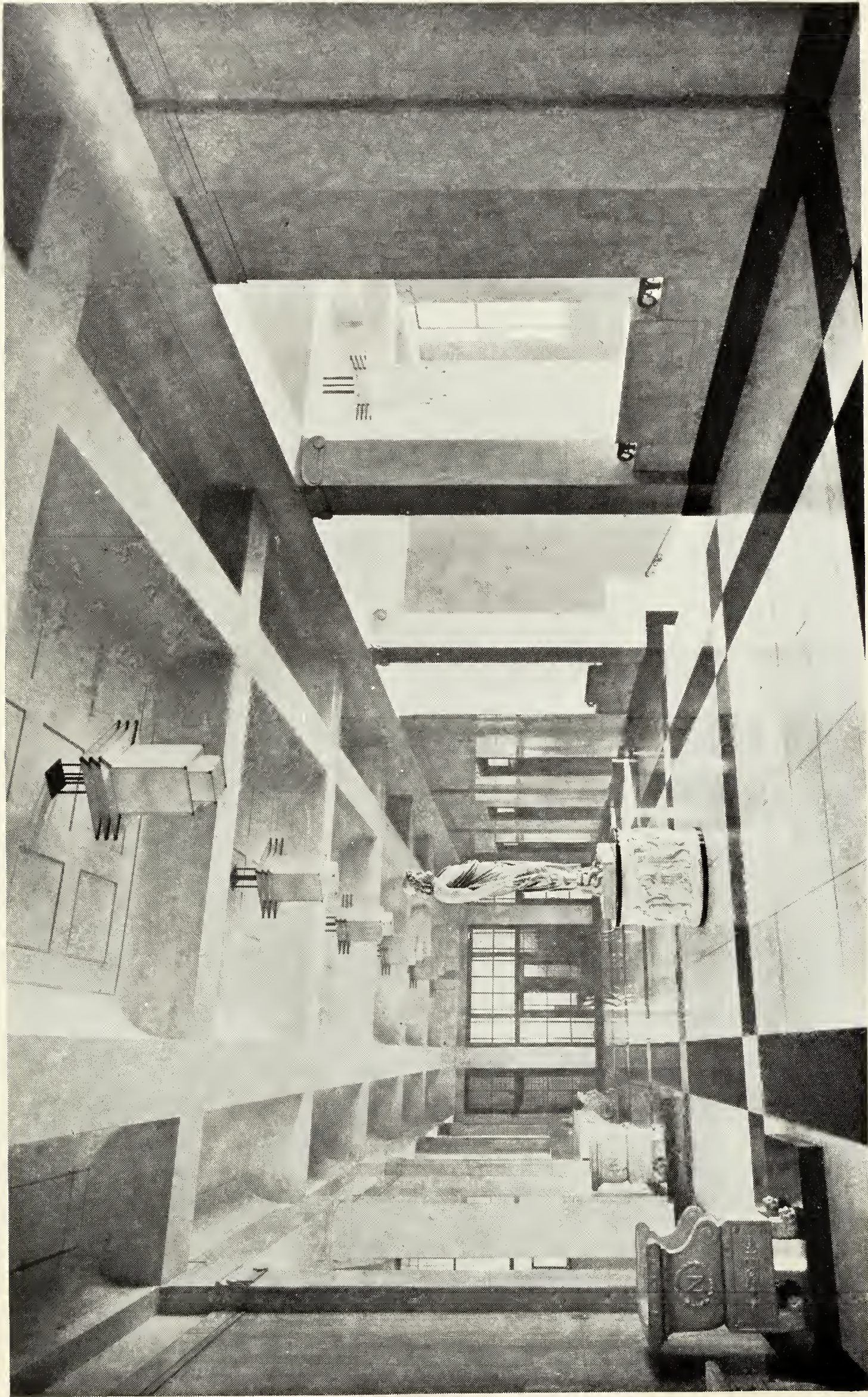
THE MUSEUM OF MEDICAL SCIENCE  
Founded 1914.

Presents a new system of visual teaching and a general  
survey of human disease from every aspect. *(Pages 59-69)*

THE HISTORICAL MEDICAL MUSEUM  
Founded 1913.

Illustrates the evolution and practice of medicine,  
surgery and allied sciences throughout the world from  
prehistoric times. *(Pages 73-84)*





THE MAIN HALL—LOOKING WEST  
THE WELLCOME RESEARCH INSTITUTION



FOUNDED IN 1913

THE WELLCOME  
BUREAU OF SCIENTIFIC RESEARCH

183, EUSTON ROAD, LONDON, N.W.1

C. M. WENYON, C.M.G., C.B.E., M.B., B.S., B.Sc., F.R.S  
*DIRECTOR-IN-CHIEF*

The Bureau was founded by Dr. (now Sir Henry) Wellcome in 1913, and to it are affiliated the research laboratories and museums referred to herein. Originally located at Henrietta Street, London, W., its first Director-in-Chief was Sir Andrew Balfour, distinguished authority on tropical medicine, who for the previous ten years had been Director of The Wellcome Tropical Research Laboratories, at the Gordon Memorial College, Khartoum.

Extensive reports of the work in these Laboratories at Khartoum have been published.\* As chief health officer, Sir Andrew sought and destroyed the breeding-places of mosquitoes, eliminated malaria and made Khartoum the most healthy city in Africa. The death-rate was reduced from 70 to 7 per mille. The Governor-General of the Sudan reported that no words of his could adequately express the value of Sir Andrew Balfour's services to the country. Sir Andrew Balfour was succeeded at Khartoum by the late Dr. A. J. Chalmers and later by Major R. G. Archibald, the present Director, who has been associated with The Wellcome Tropical Research Laboratories, Khartoum, with great distinction for twenty years.

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\* See Exhibit from The Wellcome Tropical Research Laboratories, Gordon Memorial College, Khartoum, in Group H—Booths 1 and 12, described on *pages 41 and 42.*



The Wellcome Bureau of Scientific Research, which was reconstructed and enlarged in 1926, has been greatly extended in the new building, which houses a large number of affiliated research Laboratories devoted to the study and investigation of medical problems, especially in relation to tropical medicine and hygiene. In addition to Research Laboratories, an art studio, photographic department and a number of auxiliary rooms are devoted to the preparation of specimens for research, sterilisation and other purposes.

At The Wellcome Bureau of Scientific Research and affiliated Laboratories investigations are conducted in various branches of medical science, medical zoology, parasitology, bacteriology, pathology, chemo-therapy and other subjects.

The research library in the building contains representative standard works, reprint files and current medical literature dealing more especially with the research departments mentioned above.

Routine teaching is not undertaken at the Bureau, but, when practicable, individual research workers who wish to follow any particular line of investigation may be given accommodation and facilities for their studies.

Information is supplied gratis to medical men, health officers and others in all parts of the world, with a view to assisting them in their work and investigations.

The results of the researches carried out at the Bureau and at its affiliated Laboratories are published for the most part in various current scientific periodicals and transactions. In addition, publications dealing with special subjects are issued from time to time.



In 1913, Dr. Wellcome placed the services of Dr. Louis Sambon, a member of the staff of The Wellcome Bureau of Scientific Research, at the disposal of the official Pellagra Investigation Committee, in order that the previous investigations, commenced with Dr. Wellcome's assistance in Italy in 1910, might be continued.

In 1914, Dr. Wellcome sent Sir Andrew Balfour, then Director-in-Chief of this Bureau, on a mission to the West Indies and the South American Tropics for the purpose of investigating certain local problems in tropical diseases.

Sir Andrew visited Barbados, Grenada, Trinidad and Venezuela, whence, after travelling up the Orinoco River to Ciudad Bolivar, he worked his way back to the coast and visited Caracas and the island of Curaçao, thence proceeding to Maracaibo and subsequently to Port Colombia. He travelled south on the Magdalena River to Mariquita and thence, partly by steamer and partly by mountain railway, to Bogotá, the capital of Colombia. The return was made by trekking westwards by mountain, forest and valley, to the Rio Atrato and then northwards to Cartagena. Sir Andrew next visited the Panama Canal Zone, Jamaica and Cuba. In Panama he visited, and conferred with, General Gorgas, by whose genius results were achieved similar to those obtained by Sir Andrew Balfour at Khartoum. Malaria and other tropical diseases were exterminated and the death-rate reduced from a similar high figure to 7 per mille. Sir Andrew published the results of his investigations during this Expedition in the "Transactions of the Royal Society of Tropical Medicine and Hygiene," and in a volume under the title "War Against Tropical Disease," published by the Bureau.



Dr. Wellcome placed the Bureau of Scientific Research and its staff and resources wholly at the disposal of the British War Office throughout the Great War (1914-1918), and members of the Bureau staff were appointed to official positions in connexion with the Army Medical Hospitals in England and in the various fields of action, especially in tropical and sub-tropical areas. The work included the training of Army Medical officers for service in tropical regions.

In 1915, Sir Andrew Balfour was sent to France for the purpose of studying and advising on the possibility of improvements in ambulance equipment, and in connexion with the sanitary problems of the army. Later in the same year, with the rank of Lieutenant-Colonel, he was appointed a member of the Army Medical Advisory Committee in the Near East, serving in Gallipoli, Macedonia and Egypt.

In 1916, as President of the British Army Medical Advisory Committee, Sir Andrew proceeded to India and Mesopotamia. The Medical Advisory Committee in the Near East and Mesopotamia inspected in detail every organisation concerned with the health of the troops, and reported its findings, with recommendations, not only to the War Office, but also to the local commanders, who were able immediately to take advantage of the advice and to effect a great improvement in the health of the forces.

In 1917, Sir Andrew Balfour accompanied the Inspecting Major-General as his Scientific Adviser to East Africa, where again his unrivalled experience was the means of improving the health and sanitary conditions of the army. In 1918, he was appointed President of the Egyptian Public Health Commission to formulate a plan for the reorganisation of the public health service in Egypt.



On the completion of that work, Sir Andrew Balfour proceeded to Palestine on the request of General Allenby. During the war he wrote "The Medical Entomology of Salonica" and "Memoranda on Some Medical Diseases in the Mediterranean War Area." Both these publications proved of much value, the latter especially being constantly used by practically every medical officer in the tropical and sub-tropical areas.

In accordance with Dr. Wellcome's offer and at the request of the British War Office, in 1915, Dr. Wenyon,\* the present Director-in-Chief, was appointed to conduct, at The Wellcome Bureau of Scientific Research, tutorial classes in the diagnosis of protozoal infections for medical officers who were destined for service in the tropical and sub-tropical war areas. Late in 1915 he also lectured to troops on the principles of protective vaccination against typhoid fever and other diseases.

In 1916, with the rank of Lieut.-Colonel, Dr. Wenyon joined Sir Andrew Balfour on the Medical Advisory Committee, and, in Egypt, conducted investigations into the amœbic dysentery and other intestinal protozoal infections.

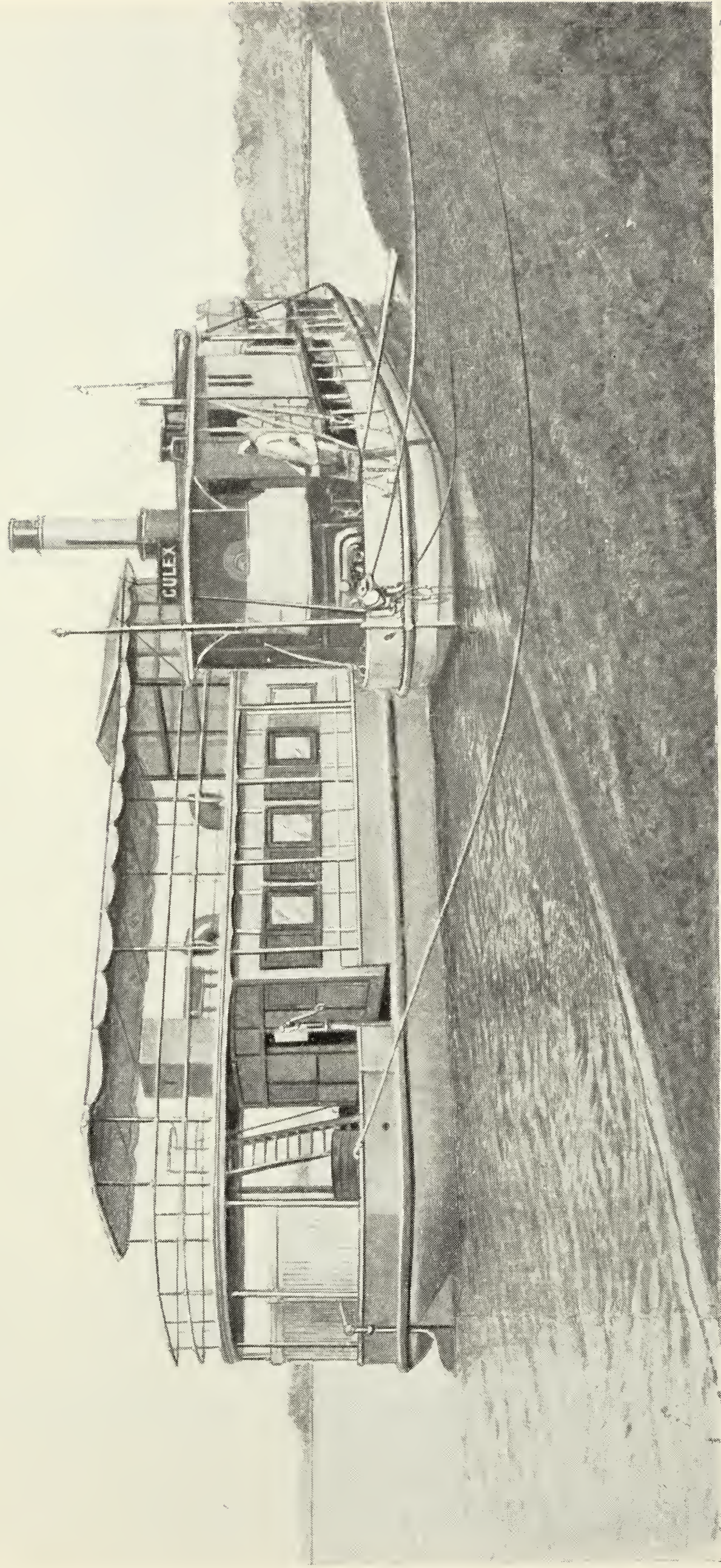
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\* Prior to his connexion with The Wellcome Bureau of Scientific Research, Dr. Wenyon had been associated with Sir Andrew Balfour at The Wellcome Tropical Research Laboratories, Khartoum. In 1907, Dr. Wenyon was appointed in charge of the Wellcome Floating Laboratory by means of which he was able to carry out successful researches in pathology, protozoology, etc., on the Nile and its tributaries from Khartoum as far south as six degrees north latitude.

This Floating Research Laboratory is believed to be *the first* in the world. It is a two-decked vessel equipped by the founder of The Wellcome Tropical Research Laboratories, and operates as efficiently as any modern scientific research laboratory on land.

As an auxiliary to the chief Laboratories at Khartoum, it enables valuable research work to be carried out in remote parts of the country otherwise difficult or impossible of access to the research worker.





THE WELLCOME FLOATING RESEARCH LABORATORY ON THE NILE  
WITH ITS TENDER S.W. "CULEX"

Fitted and equipped with the most up-to-date scientific technical appliances



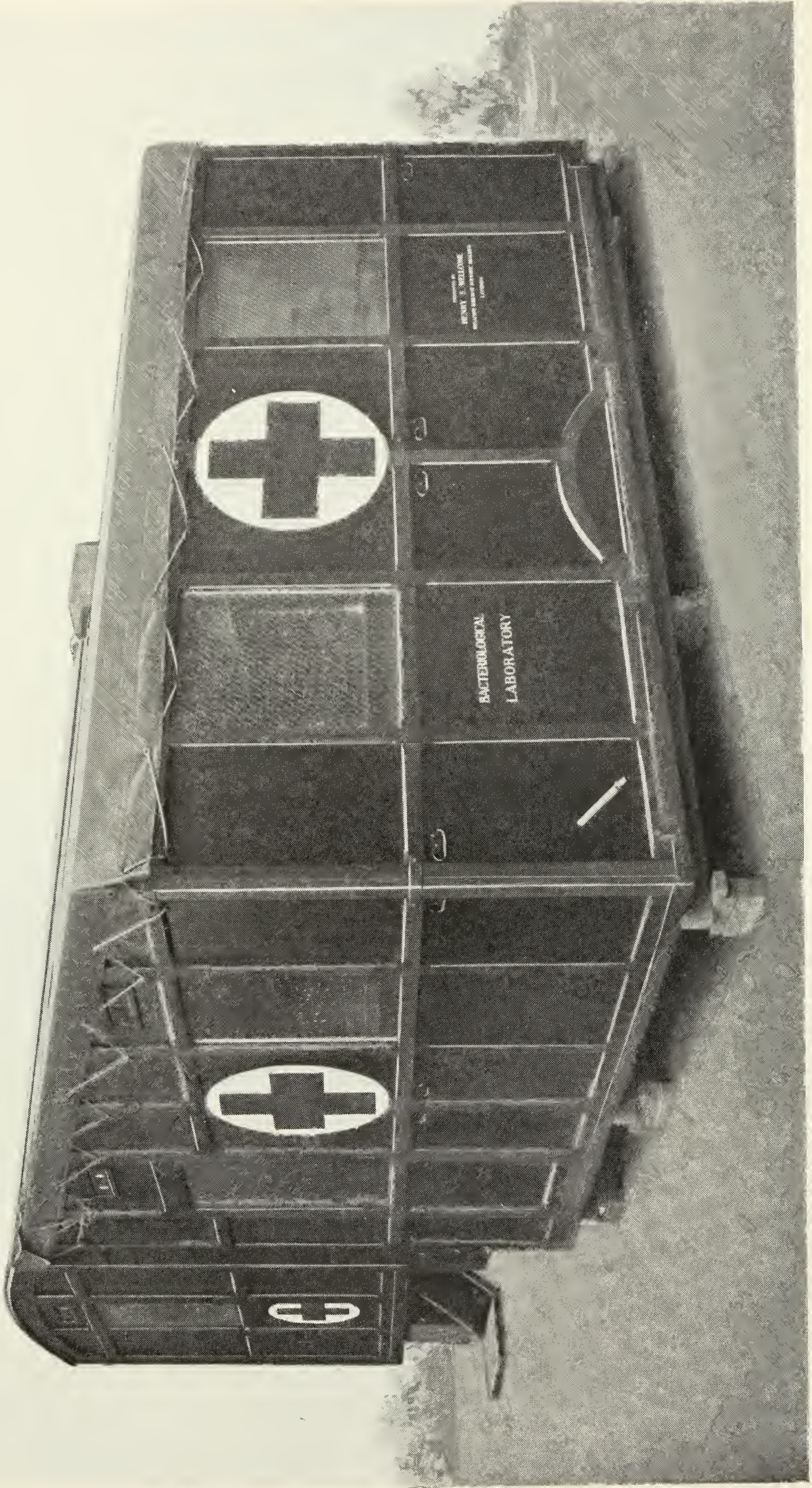
These researches led to important results, including the discovery of new organisms, the method by which dysentery is spread by flies, the most effective mode of administration of emetine for amoebic dysentery, and the identification of large numbers of amoebic dysentery carriers, not only amongst troops stationed in Egypt, but also amongst those just arriving from England. The immediate result was that a large amount of detention in hospital of apparently healthy men was saved, and the establishment of many unnecessary diagnostic centres was obviated. The conclusion reached was that a clinically healthy man was fit for service whether he were a carrier or not. The results of the investigations are described in detail in "Human Intestinal Protozoa in the Near East," by Dr. Wenyon and his collaborator, Dr. F. W. O'Connor.

Later in 1916 Dr. Wenyon proceeded with the Committee to India and Mesopotamia. In 1917, he was appointed consultant on malaria to the Salonica Expeditionary Force, and, in charge of the Malaria Enquiry Laboratory, carried out and organised researches into the method of spread, incidence, treatment and prevention of malaria.

A full account of the work Dr. Wenyon carried out appears in "Malaria in Macedonia," published in the "Journal of the Royal Army Medical Corps," and in the "Medical History of the War," the latter embracing malaria as it affected troops in all the War areas. In the post-war period, 1918-1920, with the rank of Colonel, Dr. Wenyon was appointed consultant pathologist to the Army of the Black Sea, serving in Turkey and the Caucasus.

On departure from the Wellcome Bureau of Sir Andrew Balfour and Dr. Wenyon on war service, in 1915-1916, Dr. Stevenson was appointed Acting-Director of the





THE ARMY MEDICAL MOTOR FIELD LABORATORY  
Exterior view. Body and Annexe fully erected for use



Bureau, and the tutorial classes were continued there by Mr. Clifford Dobell. Dr. Stevenson and other members of the staff of the Bureau carried out extensive and important investigations on amœbic dysentery and other protozoal infections amongst troops invalided from abroad, particularly in the Dominion and Colonial Hospitals in this country.

In 1915, Dr. Wellcome organised a special War Ambulance Construction Commission and provided a prize fund for the purpose of securing improvements in motor ambulances for service field work, etc.

The Commission consisted of :

Sir Frederick Treves, Bart., G.C.V.O., C.B., F.R.C.S.,  
Chairman British Red Cross Society.

Major-General Sir John Cowans, K.C.B., M.V.O., Quarter-  
master-General to the Forces.

Surgeon-General Sir Arthur May, K.C.B., Director-General,  
Medical Department, R.N.

Surgeon-General Sir Alfred Keogh, K.C.B., Acting Director-  
General, Army Medical Service.

The Rt. Hon. Sir Claude MacDonald, P.C., G.C.M.G.,  
K.C.B., St. John Ambulance Association.

Sir John Furley, C.B., St. John Ambulance Association.

The Rt. Hon. Lord Montagu of Beaulieu.

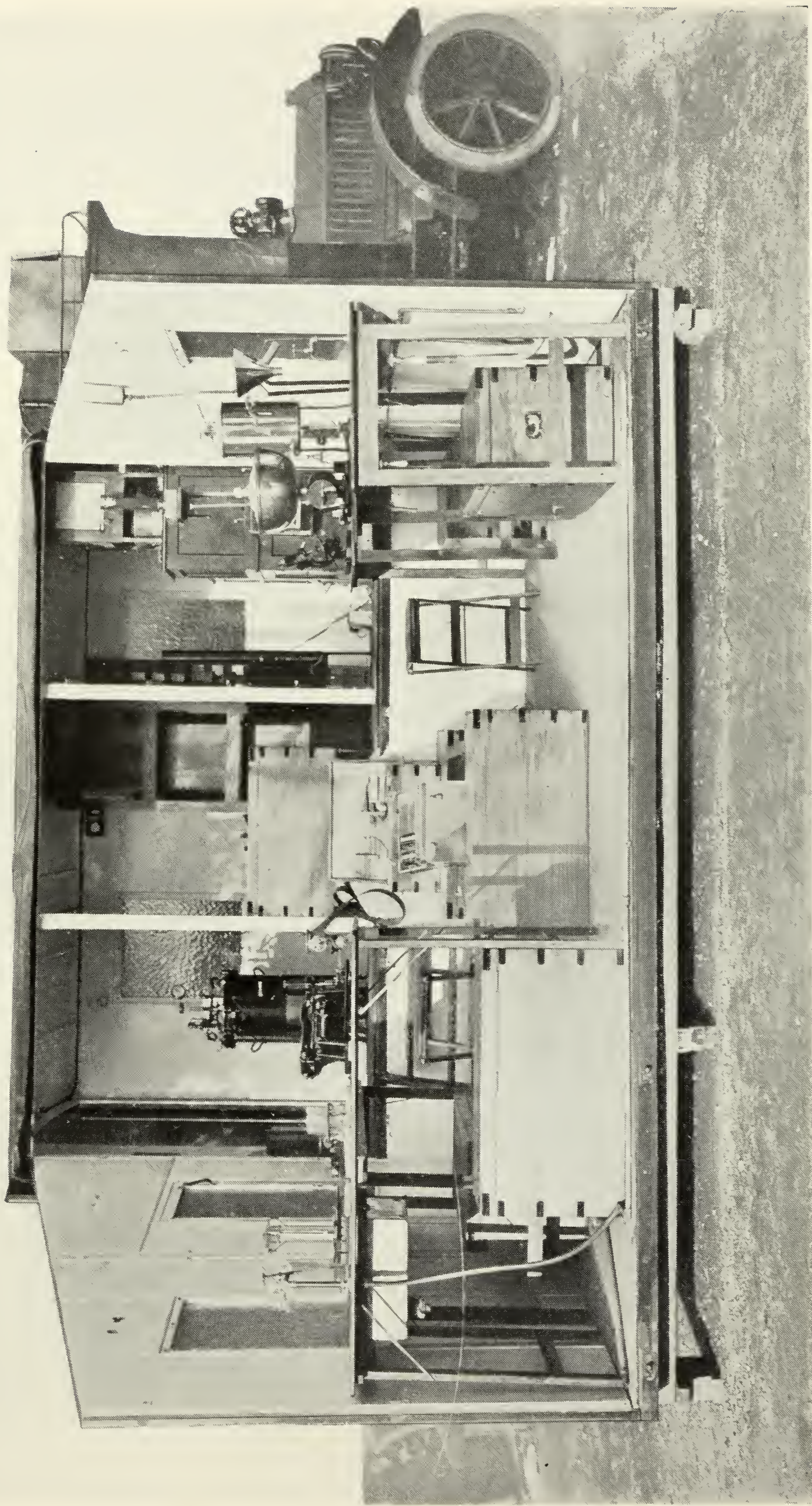
Prof. W. E. Dalby, M.A., M. Inst. C.E., M.I.Mech.E., F.R.S.

John Robertson, Esq.

Sir Andrew Balfour acted as Honorary Secretary and Treasurer of the Commission.

Two hundred and thirty-three designs were submitted and considered by the Commission, who, as a result, were enabled to bring many improvements to the notice of the Admiralty, War Office, British Red Cross Society, St. John Ambulance Association and other bodies.





#### THE ARMY MEDICAL MOTOR FIELD LABORATORY

Presented to the British War Office by Dr. Wellcome, and used during and since the Great War in Palestine, Mesopotamia, Egypt, etc. View of a section and its equipment after removal of one end of annexe. The whole can be put together or packed for transport in two hours



The best designs were submitted by Army service competitors, who, unfortunately, according to official regulations, were not permitted to accept the awards. Dr. Wellcome therefore diverted the prize fund of £2000 to the construction of a Mobile Medical Field Laboratory, which he presented to the British War Office early in 1918, through the Bureau of Scientific Research.

This Medical Motor Field Laboratory was attached to the British Army during the campaign in Palestine, Mesopotamia and Egypt as a Mobile Laboratory. It enabled the bacteriological work of the Army to be promptly carried out in the field for all Hospital Camps within a radius of more than 10 miles of headquarters. This work covered blood films for malaria and relapsing fever, blood cultures, fæcal examinations for dysentery and cholera, agglutination tests for typhoid, paratyphoid and typhus. During the final advance the mobility of the Laboratory largely extended its field of utility. The malarial work increased greatly, and as many as 600 blood films were examined daily. Much of the success of the Laboratory during the campaign was due to the efficiency of the Officer-in-Charge, Dr. J. D. Benjafield. After the Armistice the Laboratory was detailed to work on the widespread influenza epidemic which then prevailed. In 1919, it proceeded to Egypt, where it enabled valuable work to be carried out.

After the war Sir Andrew Balfour returned to his post at the Bureau of Scientific Research, and later his services were placed by Dr. Wellcome at the Government's disposal for the purpose of investigating conditions and making recommendations for improving the health of Mauritius, which at that time was devastated by disease. He made tours of investigation also in respect to tropical diseases and sanitation in the West Indies. The results of



Sir Andrew's investigations are given in a series of seven detailed Government reports, each one dealing with sanitary matters in a particular area. Recommendations were made for improvements in relation to water supplies, refuse destruction, ankylostomiasis, schistosomiasis, dysentery, plague and malaria, while it was shown that there was scope for the re-organisation and extension of the sanitary and hospital services, including laboratory facilities.

Subsequently (1922), Dr. Wellcome placed the services of Dr. MacGregor, Entomologist to The Wellcome Bureau of Scientific Research, at the disposal of the Colonial Office for the purpose of studying the mosquitoes of Mauritius. Dr. MacGregor discovered the presence in the Island of a second species of malaria-carrying mosquito and determined the distribution of the mosquitoes and the factors favouring their development. A scheme of control was elaborated and recommendations for the development of anti-malarial work were given. A full report of Dr. MacGregor's investigations was published by the Bureau under the title "Mosquito Surveys."

In 1923, Sir Andrew Balfour retired from his post as Director-in-Chief of The Wellcome Bureau of Scientific Research and was succeeded by Dr. Wenyon. Sir Andrew Balfour was subsequently appointed Director of The London School of Hygiene and Tropical Medicine.

#### SCIENTIFIC PUBLICATIONS AND RESEARCH REPORTS

The Wellcome Bureau of Scientific Research has issued

**298 Scientific Publications and Research Reports**



NOTABLE EXHIBITS FROM  
THE WELLCOME RESEARCH INSTITUTION  
AT THE  
CHICAGO EXPOSITION, 1934  
HALL OF SCIENCE

MODEL OF THE WELLCOME RESEARCH INSTITUTION  
BUILDING, LONDON (ENG.)

GROUP H—BOOTHS 1 AND 12

This model gives an idea of the imposing character of this building, specially erected to provide adequate accommodation for the Research Laboratories and Museums founded by Sir Henry Wellcome.

*(See description of Building, pages 25 and 26)*

THE ARMY MEDICAL MOTOR FIELD LABORATORY  
GROUP H—BOOTHS 1 AND 12

A screen bearing photographs illustrating the Laboratory on active service in the field, in different stages of erection, and as set up for Laboratory work.

This Mobile Field Laboratory was presented by Sir Henry Wellcome to the British War Office, and was attached to the Expeditionary Forces in Palestine, Mesopotamia and Egypt during the Great War.

It is a self-contained completely equipped mobile Laboratory, which can be erected for use, dismantled and repacked in two hours.

*(See also pages 36-40)*

NOTABLE EXHIBITS FROM THE  
WELLCOME TROPICAL RESEARCH LABORATORIES  
GORDON MEMORIAL COLLEGE, KHARTOUM  
AT THE

CHICAGO EXPOSITION, 1934

HALL OF SCIENCE

GROUP H—BOOTHS 1 AND 12

MODEL of the FLOATING RESEARCH LABORATORY presented and equipped by Sir Henry Wellcome for the use of The Wellcome Tropical Research Laboratories, Khartoum,



to enable research work and laboratory investigation to be carried out in remote parts of the country otherwise difficult or impossible of access to the research worker.

(See also pages 33 and 34)

#### GROUP H—BOOTHS 1 AND 12

Copies of the RESEARCH REPORTS of The Wellcome Tropical Research Laboratories, Khartoum, are exhibited in a special case. Photographs of the Buildings, drawings, photographs, etc., illustrating scientific and economic research in the Laboratories and in the Field, resulting from which health in the Sudan has been greatly improved and its prosperity restored.

NOTABLE EXHIBITS FROM  
THE WELLCOME BUREAU OF SCIENTIFIC  
RESEARCH  
AT THE  
CHICAGO EXPOSITION, 1934  
HALL OF SCIENCE

#### GROUP H—BOOTHS 1, 12, 13 AND 24

The work of this Research Bureau is demonstrated by exhibits dealing with investigations of diseases, particularly those prevalent in tropical and sub-tropical lands.

#### DEPARTMENT OF HELMINTHOLOGY

The exhibit consists of a small collection of human and other Tapeworms (*Cestoda*) demonstrating the varieties of these parasites, which vary greatly in size, from the fish tapeworm (*Diphyllobothrium latum*) found in man, which may be 10 metres (30 feet or more) in length, down to almost microscopic forms, such as the "dwarf" tapeworm of the mouse (*Hymenolepis nana*).



## DEPARTMENTS OF ENTOMOLOGY AND PROTOZOOLOGY

AFRICA.—SLEEPING SICKNESS in man, and also Nagana and other diseases of domestic animals, are caused by trypanosomes, organisms which are transmitted through the bite of the Tsetse-fly (*Glossina palpalis*), one of the most important blood-sucking flies of Central Africa.

The exhibit includes illustrations of the fly, its complete life-history and the structure of its biting parts.

Here, too, is illustrated the life-history of a crocodile trypanosome, which is also conveyed by a tsetse-fly.

## DEPARTMENT OF EXPERIMENTAL PATHOLOGY

Specimens and illustrations of RIFT VALLEY FEVER—a very fatal disease of sheep in Kenya Colony, Africa, which also affects man, causing fever with headache and pains in the limbs. It is caused by a filterable virus, and much work on this and allied diseases has been carried out at The Wellcome Bureau of Scientific Research.

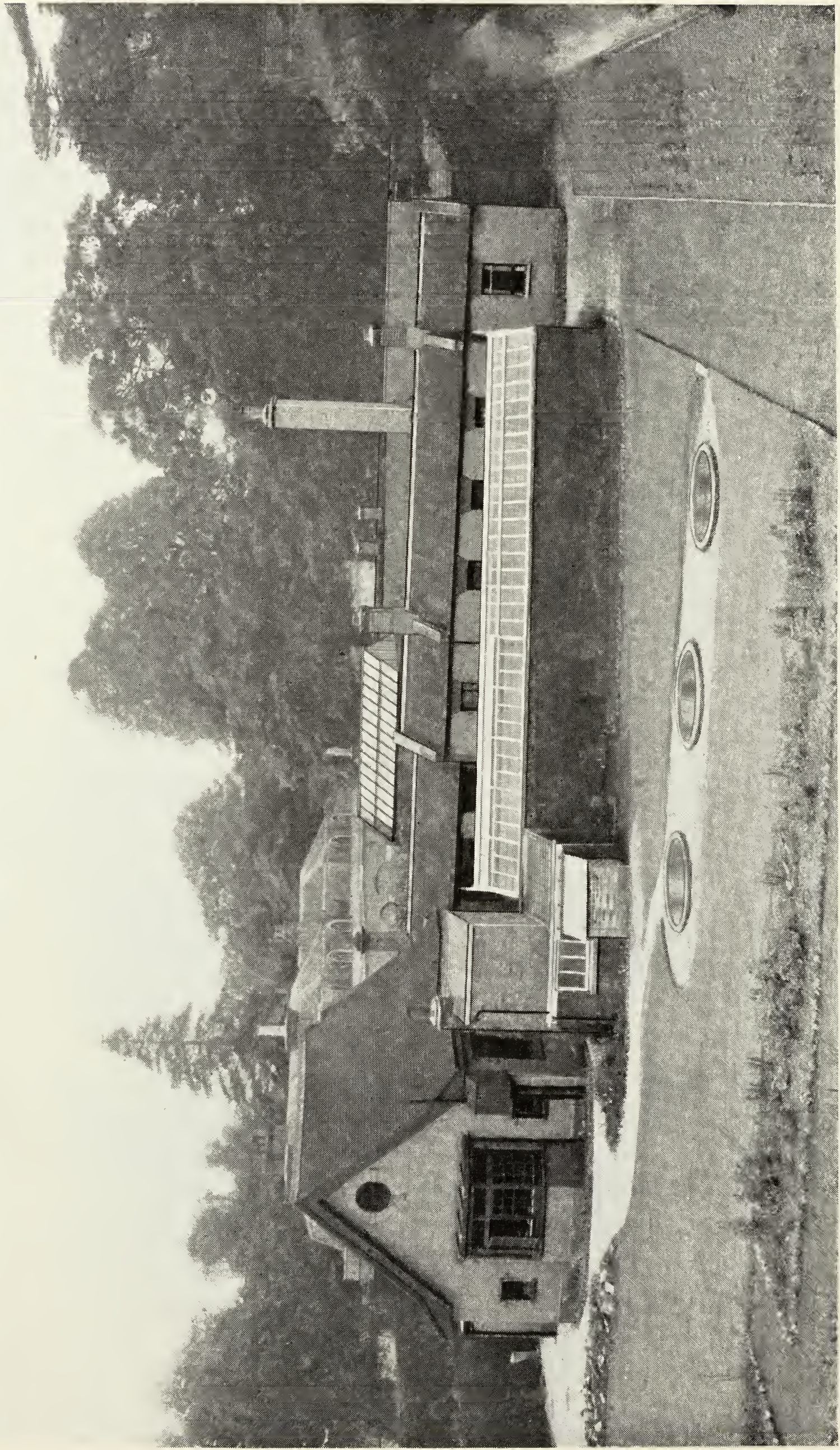
## DEPARTMENT OF BACTERIOLOGY

This Department in its exhibit illustrates the importance of *Electric Charge in certain Immunity Reactions*. This work suggests possibilities in the treatment of certain diseases and throws fresh light upon the problem of immunity.

Another exhibit deals with the *Differentiation of Bacterial Types* by the fermentation of salts of organic acids. Practical use of this research has been made by the Metropolitan Water Board of London (Eng.).

The date of its publication (1921) establishes that the method was first originated in The Wellcome Bureau of Scientific Research.





THE WELLCOME ENTOMOLOGICAL FIELD LABORATORIES, CLAREMONT, ESHER, SURREY (ENG.)

Affiliated to The Wellcome Bureau of Scientific Research

See Exhibit in Group H—Booths 1 and 12



ESTABLISHED IN 1920  
THE WELLCOME  
ENTOMOLOGICAL FIELD  
LABORATORIES

OF THE  
BUREAU OF SCIENTIFIC RESEARCH

These Entomological Field Laboratories were originally located in the Royal Horticultural Society's Gardens at Wisley, Surrey (Eng.), where, through the courtesy of the Society's Committee and the Director of the Gardens, facilities had been granted for the study of the insect pests harboured by the plant life in the gardens.

These Laboratories have now been transferred to more commodious premises at Claremont, Esher, Surrey (Eng.), demanded by the extensive development of the work.

The Laboratories carry on researches into the life-history and habits of such noxious insect pests as mosquitoes, etc., a careful study of which in the field affords the surest means of discovering methods for their control and extermination.

NOTABLE EXHIBITS FROM  
THE WELLCOME  
ENTOMOLOGICAL FIELD LABORATORIES  
AT THE

CHICAGO EXPOSITION, 1934

HALL OF SCIENCE

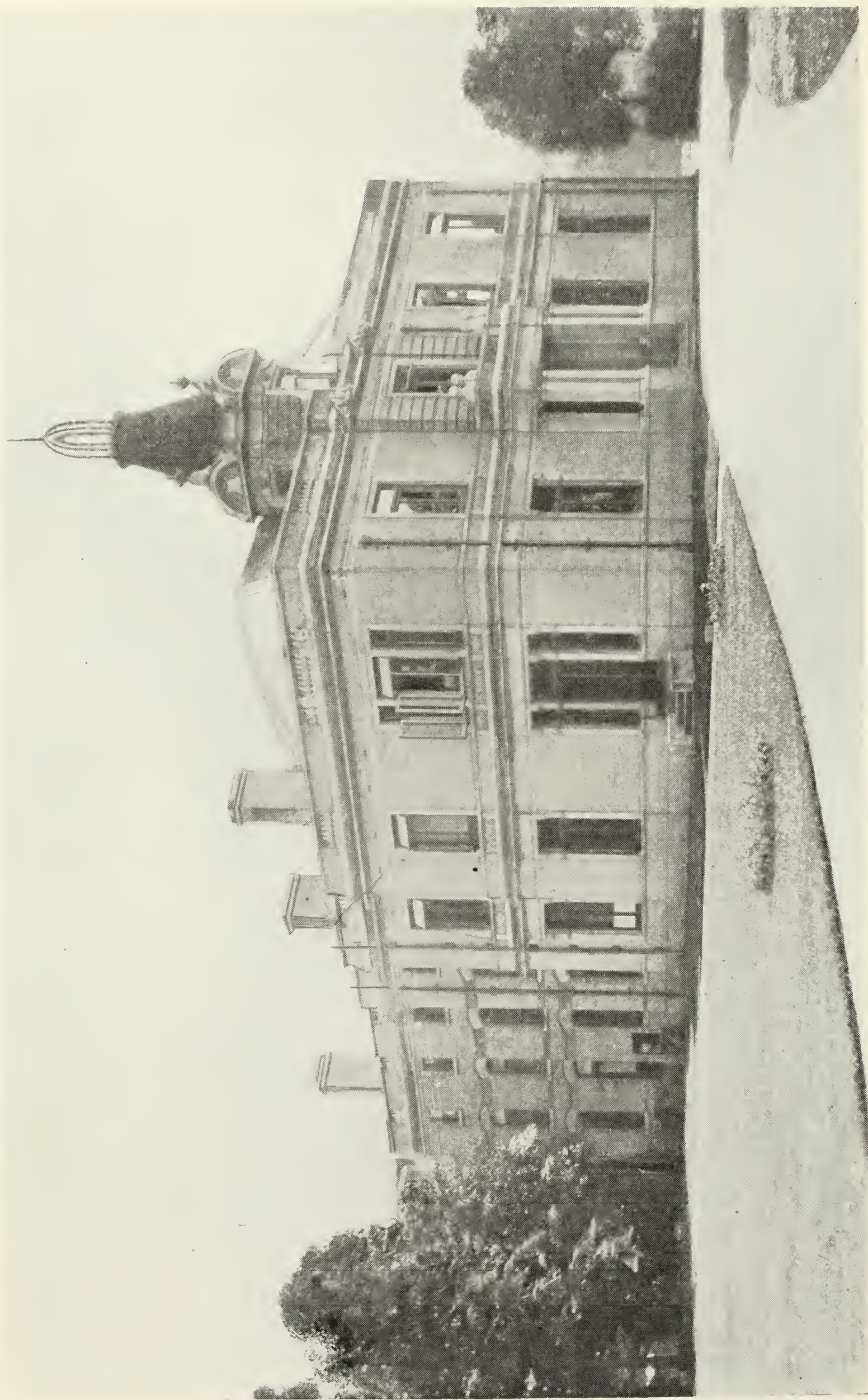
GROUP H—BOOTHS 1 AND 12

NEW METHODS in Entomological Research are illustrated by various appliances, such as safety containers for infected mosquitoes, apparatus for collecting and observing mosquitoes.

A special pump for aerating the water in which developmental forms of mosquitoes live, and a type of bird case for use in experimental malaria work are shown.

On an easel, illustrations are displayed demonstrating the conditions found during the investigation of malaria in Mauritius. During this investigation a new malaria-carrying mosquito (*Anopheles funestus*) was discovered and a report made upon the steps necessary for prevention of malaria in the Island.





MAIN RESEARCH BUILDING, THE WELLCOME PHYSIOLOGICAL RESEARCH LABORATORIES  
LANGLEY COURT, BECKENHAM, KENT (ENGL.). FOUNDED IN 1894  
Affiliated to The Wellcome Bureau of Scientific Research



FOUNDED IN 1894

THE WELLCOME  
PHYSIOLOGICAL RESEARCH  
LABORATORIES

Langley Court, BECKENHAM, KENT (ENG.)

R. A. O'BRIEN, C.B.E., M.D., B.S., D.P.H.  
*DIRECTOR*

The development of Therapeutics from a largely empirical code into an experimental science is one of the most striking and significant results of the world-wide scientific activity which has characterised the past half-century. The change has been brought about by the immense advances in the contributory sciences of Pathology, Bacteriology, Physiology and Pharmacology, which, indeed, may all be said to date their history as experimental sciences from within the same period.

The necessity for this development, and a desire to promote original research in these fields, led to the foundation, in 1894, of The Wellcome Physiological Research Laboratories, the activities of which cover a wide field of therapeutic investigation in Bacteriology, Physiology with Pharmacology, Serology and Veterinary Medicine. These Laboratories are located at Langley Court, Beckenham, Kent (Eng.), and occupy an estate of more than 100 acres of park land.

There are eight main buildings and approximately 90 laboratories and auxiliary offices.

The production of anti-sera and of bacterial preparations for specific inoculation, and the researches in bacteriology and the mechanism of immunity arising from the development of this Department of Therapeutics, have been an important part of the work of these Laboratories from the time of their foundation. During the late Great War many million doses of Tetanus Antitoxin Serum were supplied for the troops from these Laboratories.



These Laboratories also took a very prominent part in the research development and production of gas-gangrene antitoxin, of which also great quantities were supplied to the military authorities in the various war areas. Since the war, this antitoxin has been widely employed in abdominal surgery, puerperal septicæmia, and in grossly-infected wounds.

These Laboratories were pioneers in the production and introduction of anti-diphtheritic and other sera, and by extensive original research have from the first done much to raise the standard of this group of medicaments and to maintain production at a high level of concentration and efficiency.

The Pharmacological Department carries on pioneer investigations into the mode of action and the nature of the medicinal agents of vegetable, animal and mineral origin, and the production by synthesis of substances identical with, or related to, the naturally-occurring active principles, both in structure and in physiological action. Numerous medicinal agents have been investigated from all points of view in The Wellcome Physiological Research Laboratories, and many have been physiologically examined.

As an example, the discovery and isolation of ergotoxine, now admitted to be an active therapeutic constituent of ergot, was carried out in these Laboratories in 1906, during the directorship of Dr. H. H. Dale.\* This was followed by the isolation of the associated amines 'Tyramine' and 'Ergamine' (Histamine), which were found also to possess definite physiological activity.

Incidental to this pharmacological work has been research on the purely physiological problems which it suggests and involves.

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\* *Journal of the Chemical Society*, Vol. 91, page 337



The Wellcome Physiological Research Laboratories were pioneers in the physiological standardisation of medicinal products and have done a vast amount of original work, particularly in regard to the standardisation of sera, ergot, strophanthus, digitalis, etc. Methods have also been originated and developed for controlling and standardising by physiological experiment the activity of these and other organic medicinal agents to which chemical methods of assay are not applicable.

Amongst many departments of research, the Veterinary Section has carried out numerous valuable investigations into the ætiology, prophylaxis and treatment of diseases of domestic animals. Already notable contributions to knowledge regarding prophylaxis and treatment of lamb dysentery, braxy, canine jaundice and distemper, and diseases of poultry, have been made as the results of specialised investigations by research workers in this department, and suitable prophylactic sera and vaccines have been issued for use by the veterinary profession. This work forms a very important part of the Laboratories' activities and is being developed progressively.

While devoted primarily to original research, the results of which appear from time to time in scientific publications, the Laboratories have performed much valuable work of a utilitarian nature.

## SCIENTIFIC PUBLICATIONS AND REPORTS

The Wellcome Physiological Research Laboratories have issued

**More than 343 Scientific Publications and Research Reports**



NOTABLE EXHIBITS FROM  
THE WELLCOME  
PHYSIOLOGICAL RESEARCH LABORATORIES  
AT THE  
CHICAGO EXPOSITION, 1934  
HALL OF SCIENCE

GROUP H—BOOTHS 1, 12, 13 AND 24

Charts, photographs and other exhibits illustrate recent research work carried out in these Laboratories and dealing with *Diphtheria*, *Tetanus* and *Staphylococcus Antitoxins*.

Methods of preparation, concentration, testing, standardisation, etc., are shown, and the progress made in recent years is demonstrated.

The reduction of mortality during the Great War resulting from the use of tetanus and anti-gas-gangrene antitoxin is strikingly demonstrated.

Extensive pioneer work of an important character has been carried out in these Laboratories in the preparation of concentrated sera. Special interest therefore attaches to the exhibit demonstrating the advances made.

Pharmacological Exhibits include specimens of the Salts of Ergotoxine and the other active principles of Ergot, first isolated by The Wellcome Physiological Research Laboratories. Photographs show the physiological action of these alkaloids on the blood-pressure and uterus.

Biological assay, as carried out in the Laboratories by new methods and by instruments of great delicacy and precision, is illustrated.

VETERINARY RESEARCH WORK, as carried out at The Wellcome Physiological Research Laboratories, includes in its survey Lamb Dysentery, Dog Distemper, Braxy in Sheep, Yellows in Dogs (Canine Jaundice), Bacillary White Diarrhoea in Poultry, Tetanus in Horses, Fowl Pox.



FOUNDED IN 1896

THE WELLCOME  
CHEMICAL RESEARCH  
LABORATORIES

183, EUSTON ROAD, LONDON, N.W.1

T. A. HENRY, D.Sc. (LOND.)

*DIRECTOR*

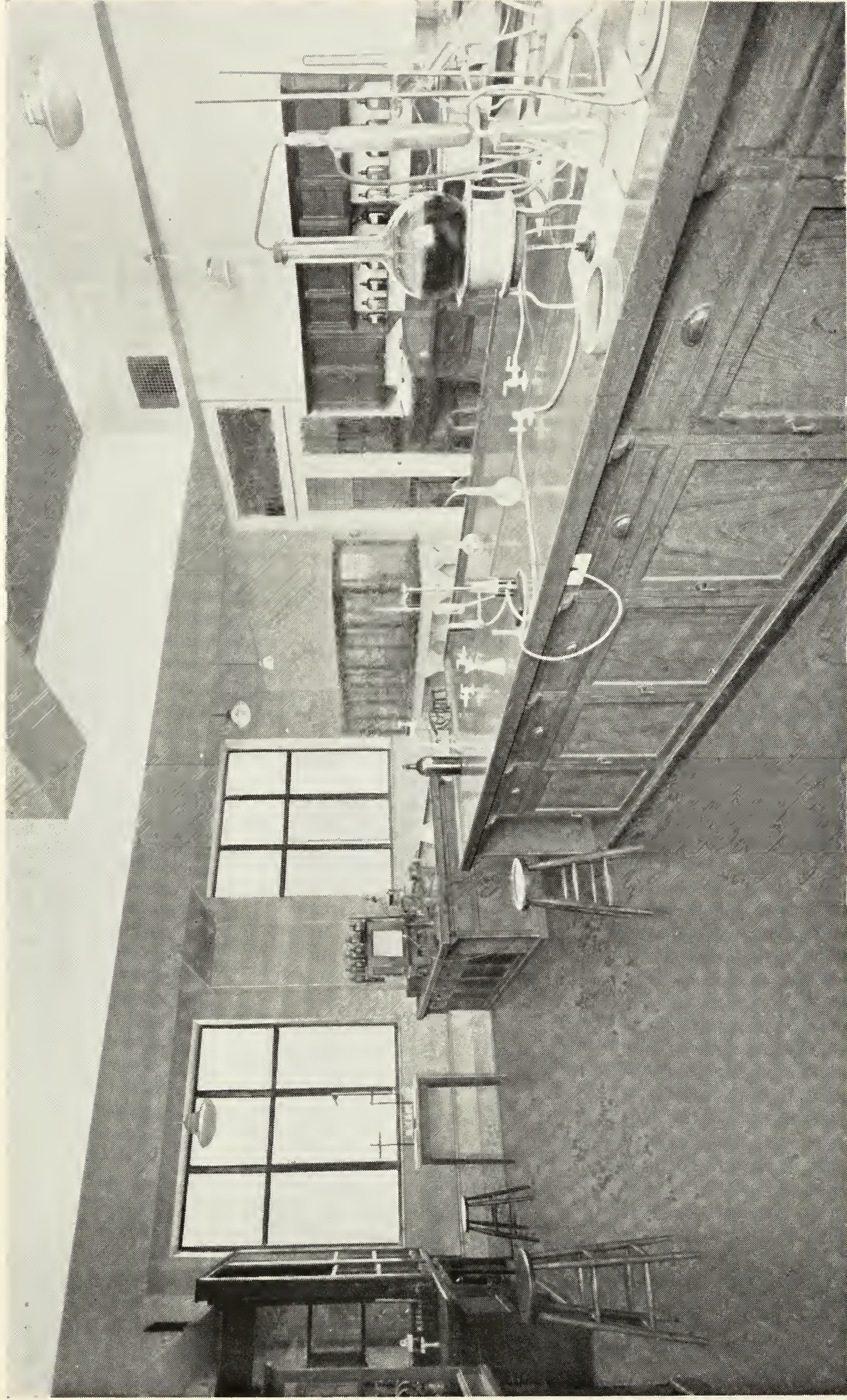
When these Chemical Research Laboratories were founded, in 1896, Frederick B. Power, Ph.D., LL.D., especially distinguished for his researches in plant chemistry, was appointed Director, which appointment he held for more than 18 years, and left a remarkable record of scientific achievement. Thirty-eight years ago little was known regarding the composition of many of the natural drugs in common use, the production of synthetic medicinal agents was just beginning, and few chemists had the temerity to work at such biological problems as the isolation of hormones.

The advance in therapeutics made since then has been mainly in these three directions, and the work done in these Laboratories has been of the wide range necessary to keep in touch with these lines of progress.

Exhaustive investigations of a large number of natural drugs have been carried out and their active principles isolated and characterised. In co-operation with The Wellcome Physiological Research Laboratories, these have been examined pharmacologically, and, as a result, the use in medicine of many natural remedial agents has been placed on a sound scientific basis.

In some instances alkaloids and other active principles of plants have for the first time been made available to the physician in a pure condition.





A SECTION OF ONE OF THE WELLCOME CHEMICAL RESEARCH LABORATORIES  
183, EUSTON ROAD, LONDON (ENG.), N.W.1



The information gained in these investigations has suggested new lines of work for the production of synthetic drugs, and many new substances of this character have been prepared and tested.

With the co-operation of The Wellcome Bureau of Scientific Research and The Wellcome Physiological Research Laboratories, much attention has been given to work on organo-metallic compounds for the treatment of specific protozoal diseases.

These varied investigations have involved the solution of many purely chemical problems, and have therefore led to valuable additions to our knowledge of pure chemistry, as well as to results of practical therapeutic value.

#### SCIENTIFIC PUBLICATIONS AND REPORTS

The Wellcome Chemical Research Laboratories have issued

**More than 281 Scientific Publications and Research Reports**

#### NOTABLE EXHIBITS FROM THE WELLCOME CHEMICAL RESEARCH LABORATORIES AT THE CHICAGO EXPOSITION, 1934 HALL OF SCIENCE

GROUP H—BOOTHS 1, 12, 13 AND 24

The exhibits of these Laboratories are devoted mainly to demonstrations of investigations dealing with substances employed in the treatment of disease.

#### ANTI-MALARIAL AGENTS

- (a) Effects of cultivation of Cinchona on yield of Alkaloids, particularly quinine ;



- (b) Mixed cinchona alkaloids ; “ Totaquina ” ;
- (c) Principal alkaloids of cinchona—specially purified ;
- (d) Modified cinchona alkaloids for trial in bird malaria ;
- (e) Natural drugs with local reputations as remedies for malaria.

#### AMŒBICIDAL AGENTS

Researches on the alkaloids of Ipecacuanha.

Kurchi Bark and its constituent alkaloids.

Alleged cures for dysentery.

#### ANTHELMINTICS

Researches on Chenopodium or American Wormseed oil ;  
Specimens of constituents, including the sole active principle—Ascaridole.

Phenols prepared for trial in hook-worm disease.

Species of Artemisia examined for santonin.

#### ANTIMONIAL SUBSTANCES

Drugs representative of the “ emetics ” used in the treatment of sleeping sickness and bilharzia, and of organic compounds of antimony derived from *p*-aminophenylstibinic acid ; the efficiency of the latter series in the treatment of kala azar is a noteworthy achievement of chemotherapy.

#### ANTI-LEPROTIC AGENTS

Researches, commencing in 1904,\* on chaulmoogra and hydnocarpus oils, and on oils of other less well-known Flacourtiaceous seeds.

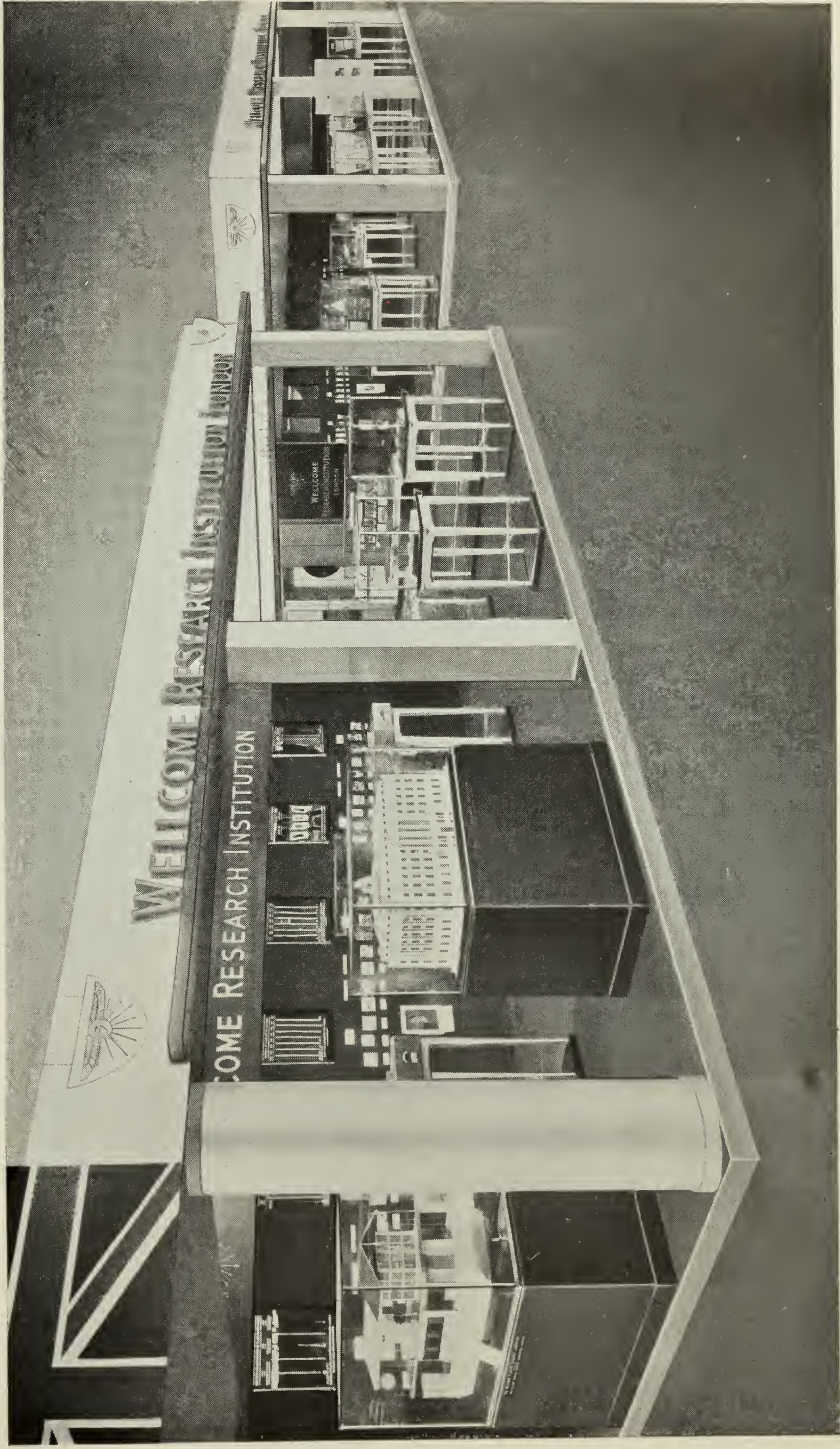
Modern methods of utilising the characteristic acids of these oils.

Compounds of copper and of mercury representative of a series prepared for trial in leprosy.

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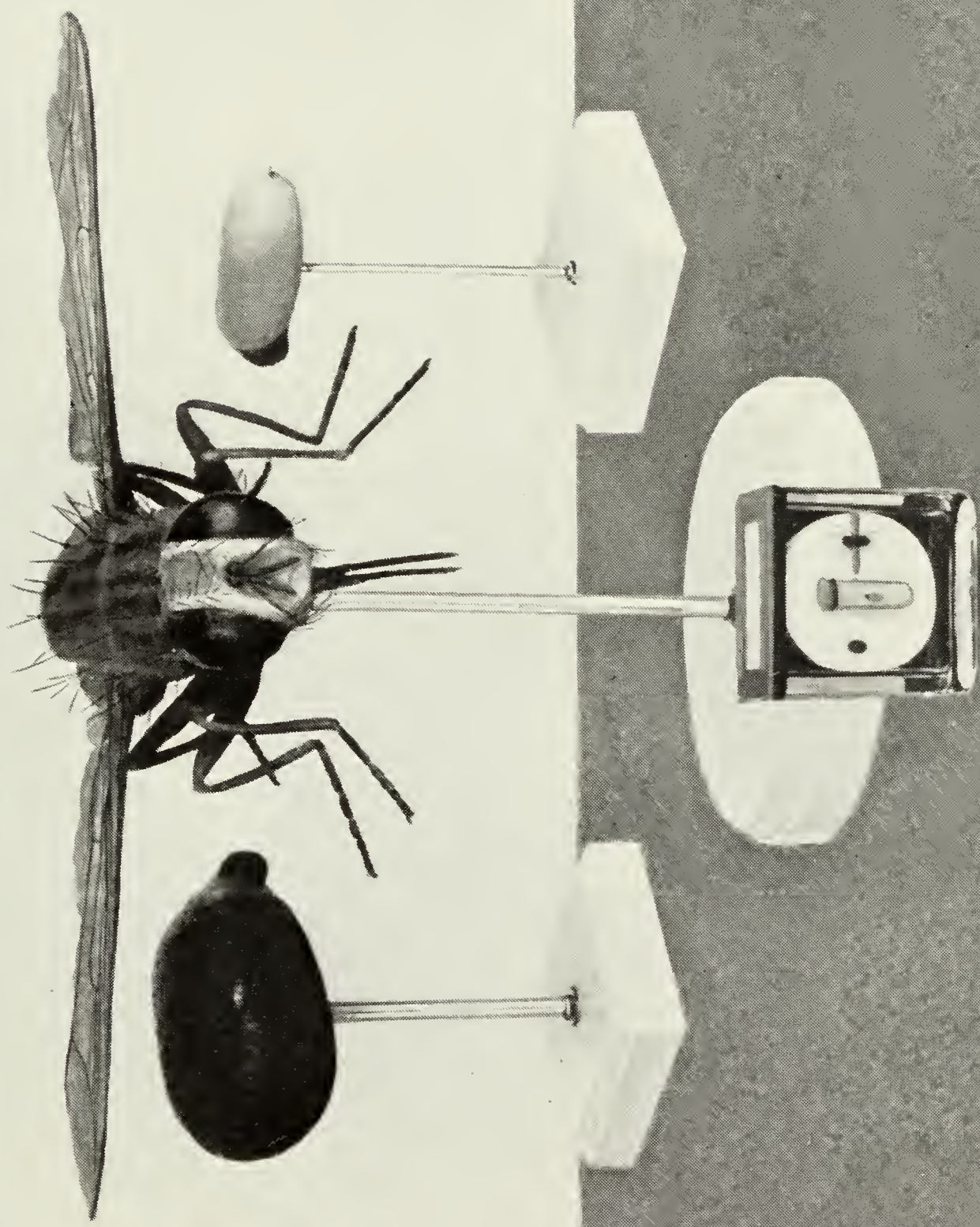
\* See Dr. F. B. POWER, *pages 51, 68 and 69*





PART OF EXHIBIT OF THE WELLCOME RESEARCH INSTITUTION—HALL OF SCIENCE, CHICAGO EXPOSITION GROUP·H.—Booths 1 and 12 in the foreground. Booths 13 and 24 in the distance.





Wax Models showing Life History of Tsetse-fly (*Glossina palpalis*), one of the most important blood-sucking flies of Central Africa. Transmits sleeping sickness. Larva, pupa and imago

See also Exhibits illustrated on page 58



ILLUSTRATIONS OF EXHIBITS  
THE WELLCOME RESEARCH INSTITUTION  
CHICAGO EXPOSITION, 1934

HALL OF SCIENCE

GROUP H—BOOTHS 1 AND 12, 13 AND 24

GROUP F—BOOTH 10

(See PLAN, *page 1*)

The photograph on *page 55* shows the Booths 1 and 12 in the foreground. On the extreme left is the model of The Wellcome Floating Research Laboratory (*see pages 33, 34, 41 and 42*). In the left centre is the model of The Wellcome Research Institution (*see pages 2, 4, 25 and 40*). Left and right of this model and slightly to the rear are special viewing structures exhibiting colour photomicrographs of Protozoa, and alongside these are exhibits of anti-malarial agents and amœbicides from The Wellcome Chemical Research Laboratories.

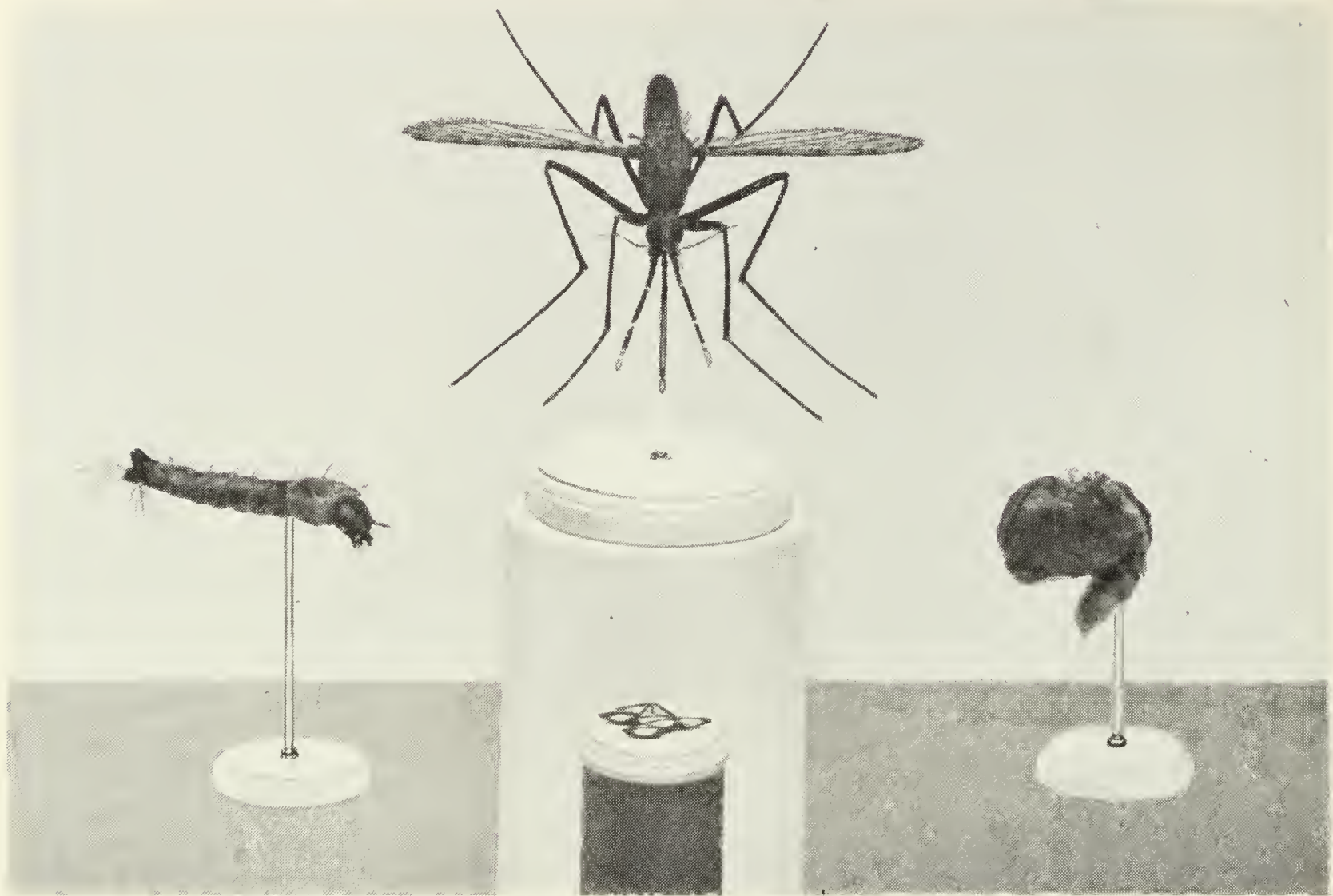
Wax models, illustrating the life-history of the mosquito and Tsetse-fly (*see also pages 56 and 58*) occupy cases on the right centre of this exhibit. These and also the illuminated pictorial summaries of malaria, sleeping sickness and kala azar on the screen background are contributed by The Wellcome Museum of Medical Science.

The photograph on *page 55* shows Booths 13 and 24. Here are the exhibits of the Wellcome Entomological Field Laboratories (*see pages 44 and 45*) and the exhibits of Entomology, Helminthology and Bacteriology from The Wellcome Bureau of Scientific Research (*see pages 42 and 43*); colour photomicrographs of Protozoa from The Wellcome Museum of Medical Science; anti-leprotic agents from the Wellcome Chemical Research Laboratories; and pharmacological, antitoxin and veterinary research exhibits from The Wellcome Physiological Research Laboratories.

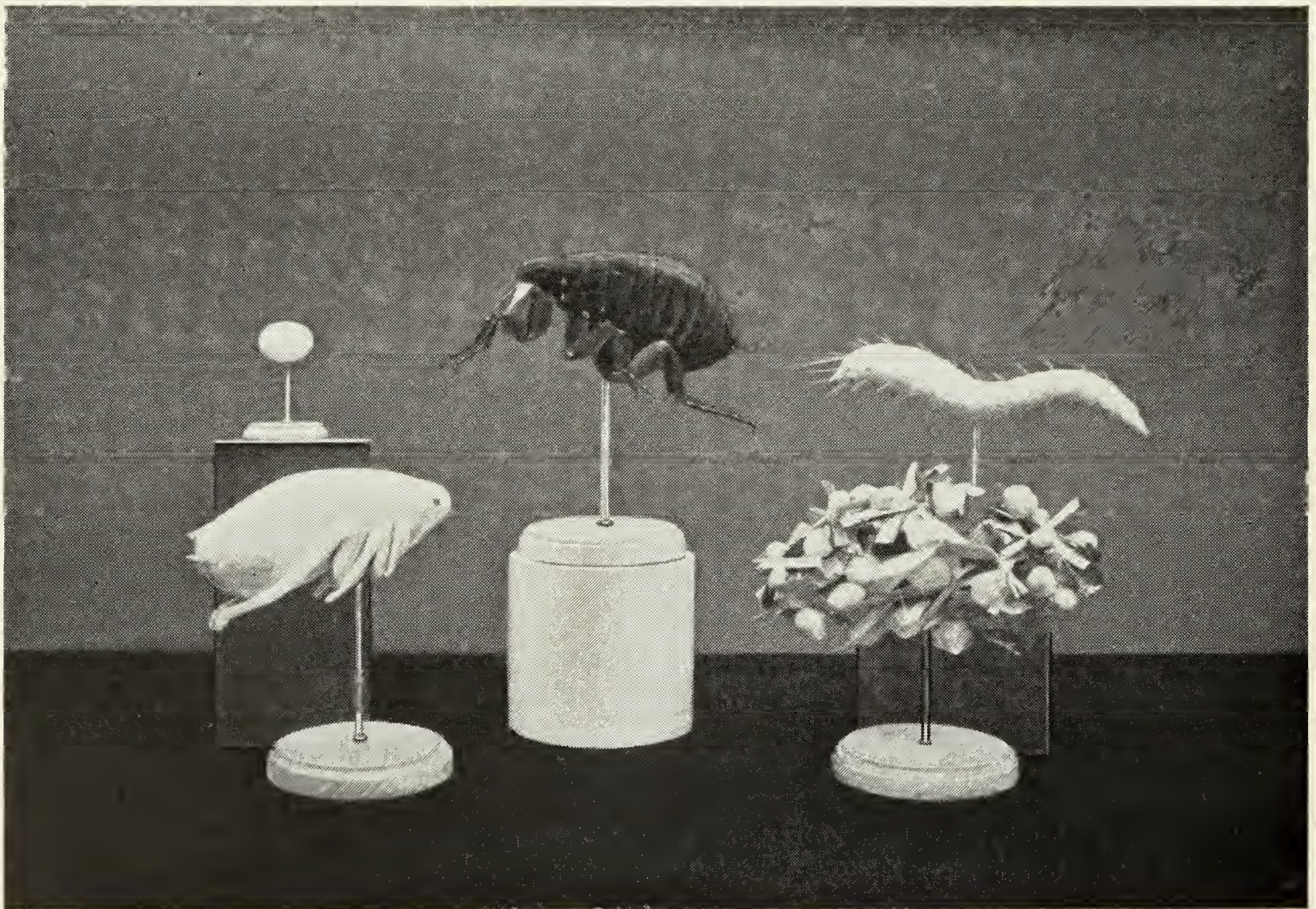
On the screen are illuminated pictorial summaries of Leprosy, Plague and Bilharziosis from The Wellcome Museum of Medical Science.

The photograph on *page 78* presents a view of part of the Exhibit of The Wellcome Historical Medical Museum (Group F, Booth 10), described in detail on *pages 77 to 84*.





Wax Models showing the Life History of *Anopheles costalis*, Theo., the chief African carrier of Malaria. Eggs, larva, pupa and imago



Wax Models of Plague Flea. Egg, pupa, larva, cocoon  
*See also illustration of Model of Tsetse-fly, page 56*



FOUNDED IN 1914

THE WELLCOME  
MUSEUM OF MEDICAL SCIENCE  
INCLUDING TROPICAL MEDICINE AND  
HYGIENE

183, EUSTON ROAD, LONDON, N.W.1

S. H. DAUKES, O.B.E., B.A., M.D., B.Ch., D.P.H.  
D.T.M. & H.

*DIRECTOR*

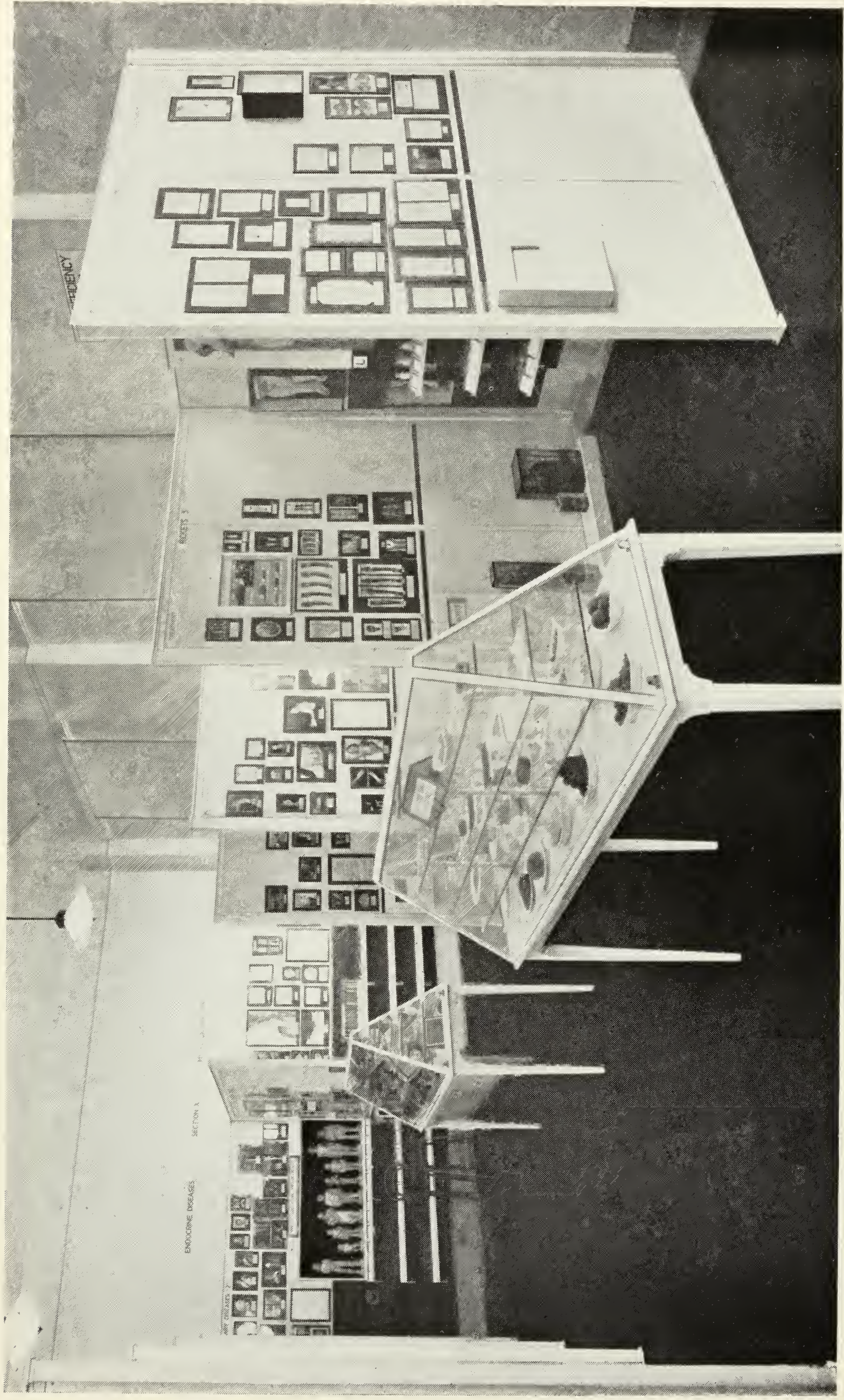
This Museum, affiliated to The Wellcome Bureau of Scientific Research, then located at 10, Henrietta Street, London (Eng.), W. 1, was founded in 1914. In the course of time it has been greatly developed and extended in scope. The Museum of Medical Science, after a period of further development and reconstruction at Endsleigh Court, was reopened in 1926 by the Rt. Hon. Neville Chamberlain, then the British Minister of Health.

The Museum of Medical Science presents an entirely new system of visual teaching.

The purpose and plan of this Museum is to give a general survey of human disease from every aspect. The causation, pathology, symptomatology, treatment and prevention of disease are demonstrated by means of pathological specimens, models, paintings, photographs, etc., in such a way that they convey a graphic picture of the more important features.

Associated with each disease a short summary is set forth of the important points ; also there are files containing abstracts with regard to all the more recent work.





THE WELLCOME MUSEUM OF MEDICAL SCIENCE, LONDON (ENG.)  
Sections dealing with Endocrine and Food-deficiency Diseases



A museum demonstration of the microscopic side of morbid anatomy presents certain difficulties ; an effort has been made to overcome these by means of colour photomicrography. In many of the sections these photographs are shown in special illuminated cases. Thus an attempt has been made to provide a continuous demonstration of disease which will fix itself on the attention and memory of those who visit the Museum.

The Museum of Medical Science is a Research Museum and is open to Medical Men, Health Officers and Students, of all countries, also to laymen interested in medicine, if introduced by a registered Medical Practitioner.

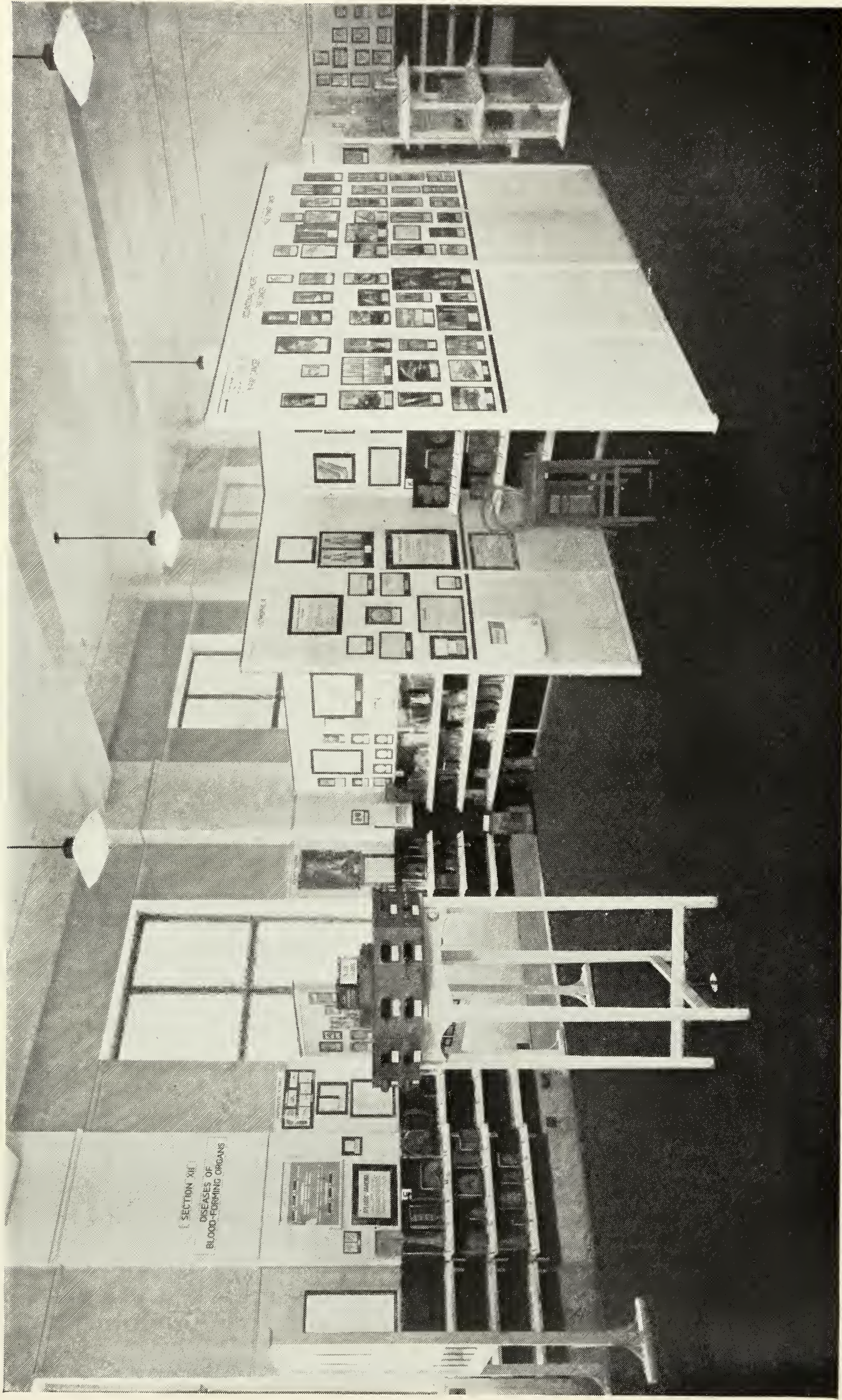
Many Teachers of Medicine, Surgery and Hygiene have found this Museum helpful to them in effectually illustrating the various branches of Medical and Surgical Science to their Students, and they are cordially invited to continue such use. Arrangements can be made in advance for teachers to give their classes demonstrations at the Museum.

During recent years The Wellcome Museum of Medical Science has participated in many Health Exhibitions at the request of the British Government.

In 1924, at the Wembley Exhibition, this Museum was responsible for organising and installing the Tropical Diseases Section in the Government Pavilion and, in addition, for supplying many other important exhibits.

In the 1925 Wembley Exhibition, at the request of the Ministry of Health, the Director of The Wellcome Museum of Medical Science organised and supervised the Hygiene Demonstration in the Government Pavilion, in which all departments of the Ministry participated. Much of the material was lent by The Wellcome Museum of Medical





THE WELLCOME MUSEUM OF MEDICAL SCIENCE, LONDON (ENG.)  
Sections for Diseases of the Blood-forming Organs, and Passage-way leading to Section devoted to New Growths



Science. A large part of this exhibit was subsequently displayed at Dunedin Exhibition, and further assistance given to the New Zealand Government.

In 1930, at the request of the Government Department, The Wellcome Museum of Medical Science organised the Tropical Health Exhibit in the British Pavilion at the Maritime and Colonial Exhibition, Antwerp. The materials and specimens were supplied mainly by The Wellcome Museum of Medical Science and the Liverpool School of Tropical Medicine. So successful was this exhibit that it was subsequently transferred to Buenos Aires and then to the Dresden Exhibition.

The entire organisation of the British Health Section of the Paris Colonial Exhibition in 1931 was carried out by The Wellcome Museum of Medical Science at the request of the Government Department concerned. For this Section, which was designed on a very large scale and embraced practically all the important diseases which affect British Dominions and Colonies, the scientific exhibits were devised entirely from the resources of the Wellcome Museum.

Whilst many sections of the Museum are complete and well supplied with material, some sections, which have only recently been organised, are in an early stage of development. Much of the success of the Museum depends upon its final completeness and *the continued co-operation, help, advice and generous contribution of specimens and information by Medical Men and other Scientists interested in this field of work in various parts of the world.* Indebtedness for such help is most gratefully acknowledged.





THE WELLCOME MUSEUM OF MEDICAL SCIENCE, LONDON (ENG.)  
APLASTIC ANÆMIA

An Exhibit which illustrates the method of grouping. All specimens on the two top shelves are from one case



NOTABLE EXHIBITS FROM  
THE WELLCOME  
MUSEUM OF MEDICAL SCIENCE  
AT THE  
CHICAGO EXPOSITION, 1934  
HALL OF SCIENCE  
GROUP H—BOOTHS 1, 12, 13 AND 24

The exhibits of this Research Museum are designed to demonstrate the original methods of display adopted in order to provide *a system of visual teaching giving a general survey of human disease from every aspect.*

ILLUMINATED STATISTICAL DEVICES give information with regard to the prevention and treatment of disease during the last century.

*Here can be seen the reduction in malaria resulting from carefully devised schemes ; the reduction in sleeping sickness by destruction of tsetse flies ; the reduction in undulant fever by prohibition of goat's milk which carries the germs ; the reduction in death-rate from kala azar by the use of antimony compounds ; and the reduction in incidence of plague by prophylactic inoculation.*

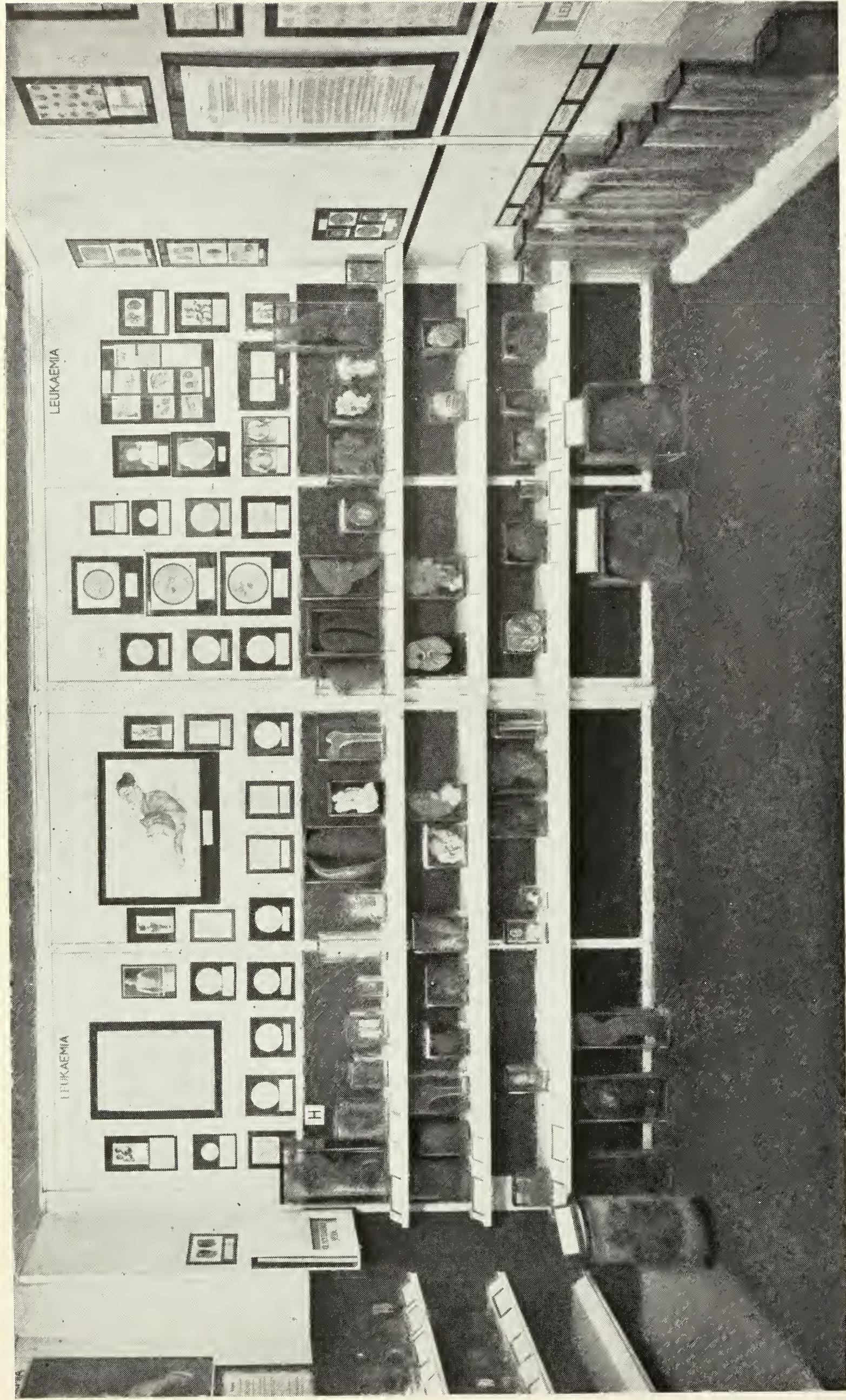
Other statistical charts deal with the decline in death-rate from all causes in England and Wales during the last eighty years ; the decline in death-rate from tuberculosis, smallpox, typhus, scarlet fever and typhoid fever ; and the reduction in tetanus during the Great War, due to the use of anti-tetanic serum.

#### MALARIA EXHIBIT

*Illustrations show how malaria is caused ; how mosquitoes breed and carry the disease ; how the parasites assume different forms in the life-cycle.*

There is a wax model of *Anopheles costalis*, one of the most important carriers of malaria in Africa ; also models of its developmental forms—the egg, larva and pupa.





THE WELLCOME MUSEUM OF MEDICAL SCIENCE. LONDON (ENG.)

LEUKÆMIA

A corner of the Section devoted to Diseases of the Blood-forming Organs



Portraits of the British pioneers in malaria work :

Sir Patrick Manson, known as the "Father of Tropical Medicine," who initiated the experimental research work which identified the mosquito as the carrier of malaria.

Sir Ronald Ross, who participated in these investigations.

Photomicrographs in colour show the parasites of malaria in the human blood and in the mosquito.

#### SLEEPING SICKNESS EXHIBIT

A wax model is shown of the tsetse fly, whose bite conveys the parasite (*Trypanosoma gambiense*) causing sleeping sickness ; also models of the larva and pupa of the fly.

Transparencies show details of the disease, also its effect upon man.

Portraits of two British pioneers in sleeping sickness work :

- (1) Sir David Bruce, who successfully investigated the disease and suggested methods for its control ;
- (2) J. Everett Dutton, who discovered *Trypanosoma gambiense*, and died of tick fever whilst investigating that disease.

#### KALA AZAR EXHIBIT

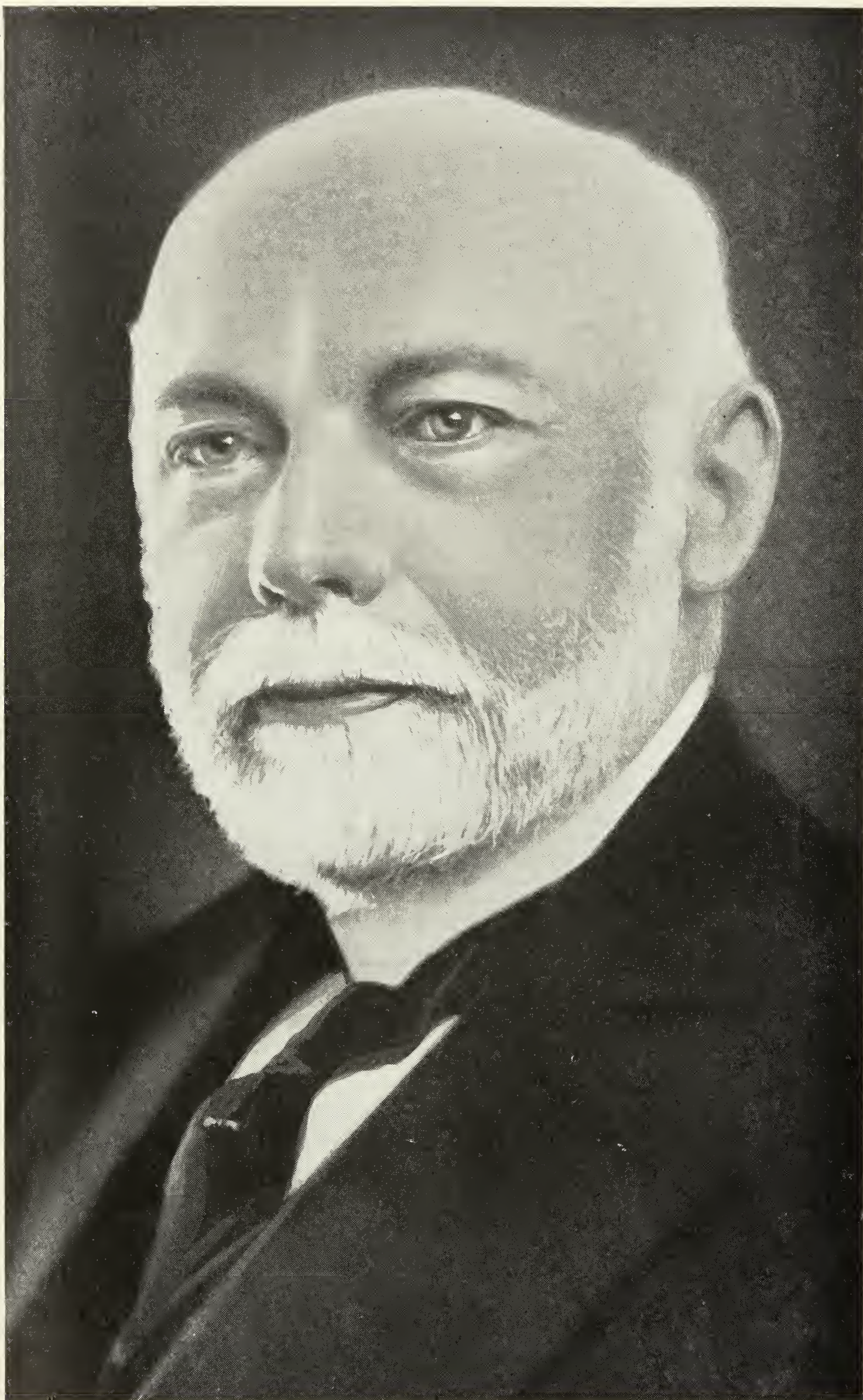
Transparencies are used to show the causative parasite, *Leishmania donovani*, physical appearance of sufferers from the disease, and other details.

Portraits of two British pioneers in tropical medicine, Sir William Leishman and Colonel Donovan, who were responsible for the discovery of the parasite.

#### LEPROSY EXHIBIT

Transparencies illustrate the causal organisms, the possibility of fly transmission or direct passage to food from infected persons.





FREDERICK B. POWER, PH.D., LL.D.  
Director of The Wellcome Chemical Research Laboratories from 1896 to 1914  
*(See note on facing page)*



Four pictures show clinical conditions of nodular leprosy, nerve leprosy, leprosy in childhood and mutilation due to leprosy.

A leper colony, providing isolation during infective stages, employment, recreation and social amenities during treatment, is illustrated.

A Portrait is shown of Dr. F. B. Power, who, in 1904, while Director of The Wellcome Chemical Research Laboratories, carried out the successful pioneer research work on the Ethyl Esters of Chaulmoogra, which led to the production of the most successful anti-leprotic agents; and also a Photograph of Sir Leonard Rogers, who has worked extensively upon the prevention and treatment of the disease and is largely responsible for the British anti-leprosy campaign.

#### PLAGUE EXHIBIT

Transparencies illustrate the causal organism—*Bacillus pestis*; the rat flea (*Xenopsylla cheopis*), which transmits the disease to man; clinical pictures; methods of rat destruction and other preventive methods.

Portraits of Sir William Simpson, one of the world's leading authorities on tropical medicine and hygiene, who conducted investigations and researches on the prevention of the disease; and Bacot, who elucidated the method of its transmission.

#### BILHARZIASIS EXHIBIT

Bilharziasis, a common disease in Egypt.

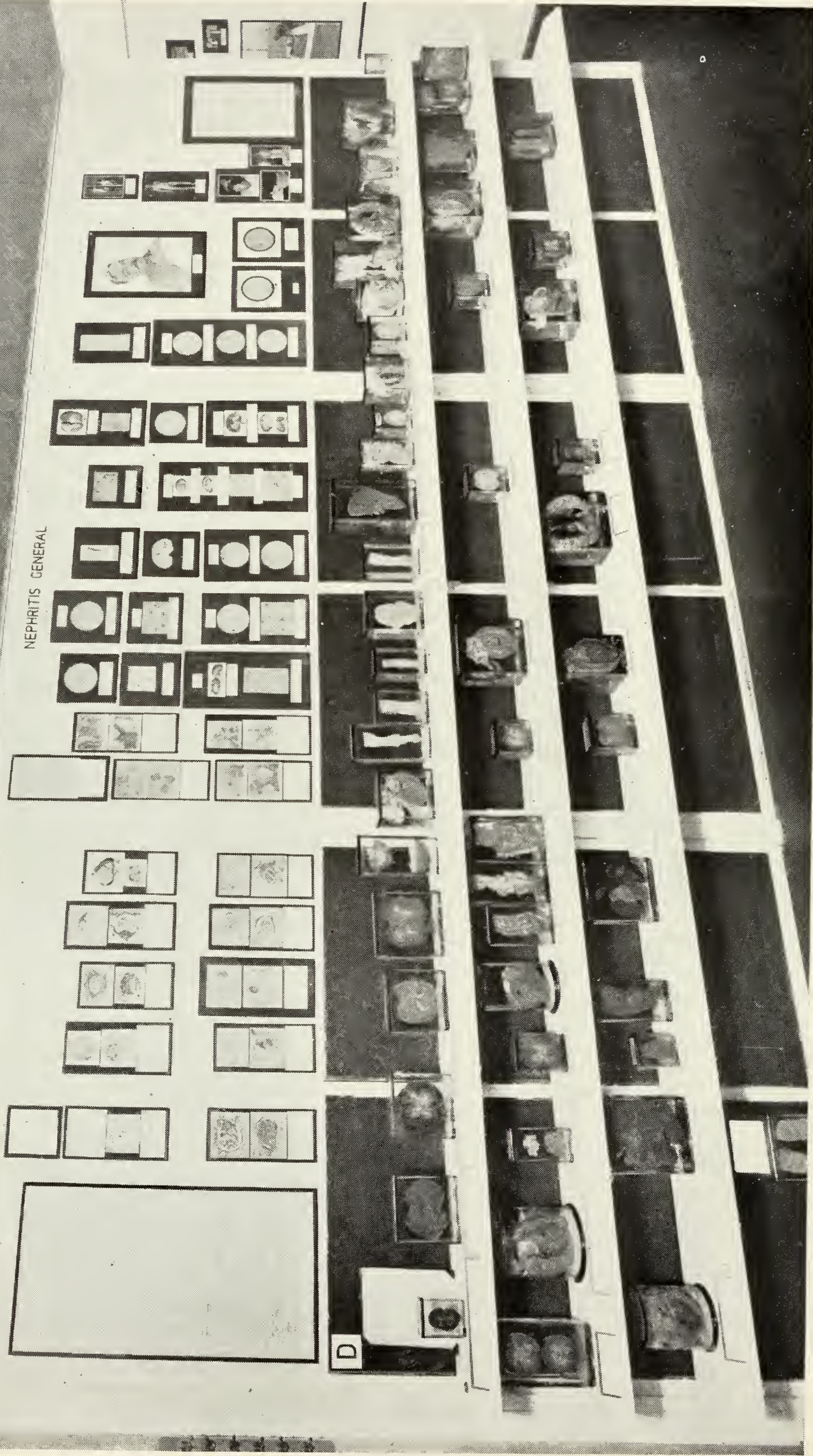
Transparencies illustrate the worm, *Schistosoma mansoni*, which causes the intestinal form of the disease, its life-cycle in water, snails and man.

Portraits of two British pioneers:

- (1) R. T. Leiper, who conducted investigations and researches in reference to the mode of transmission in Egypt;
- (2) J. B. Christopherson, who introduced into Egypt widespread treatment with tartar emetic.



→ SECTION



THE WELLCOME MUSEUM OF MEDICAL SCIENCE, LONDON (ENG.)  
NEPHRITIS

Showing Summaries, Illustrations and Specimens grouped together

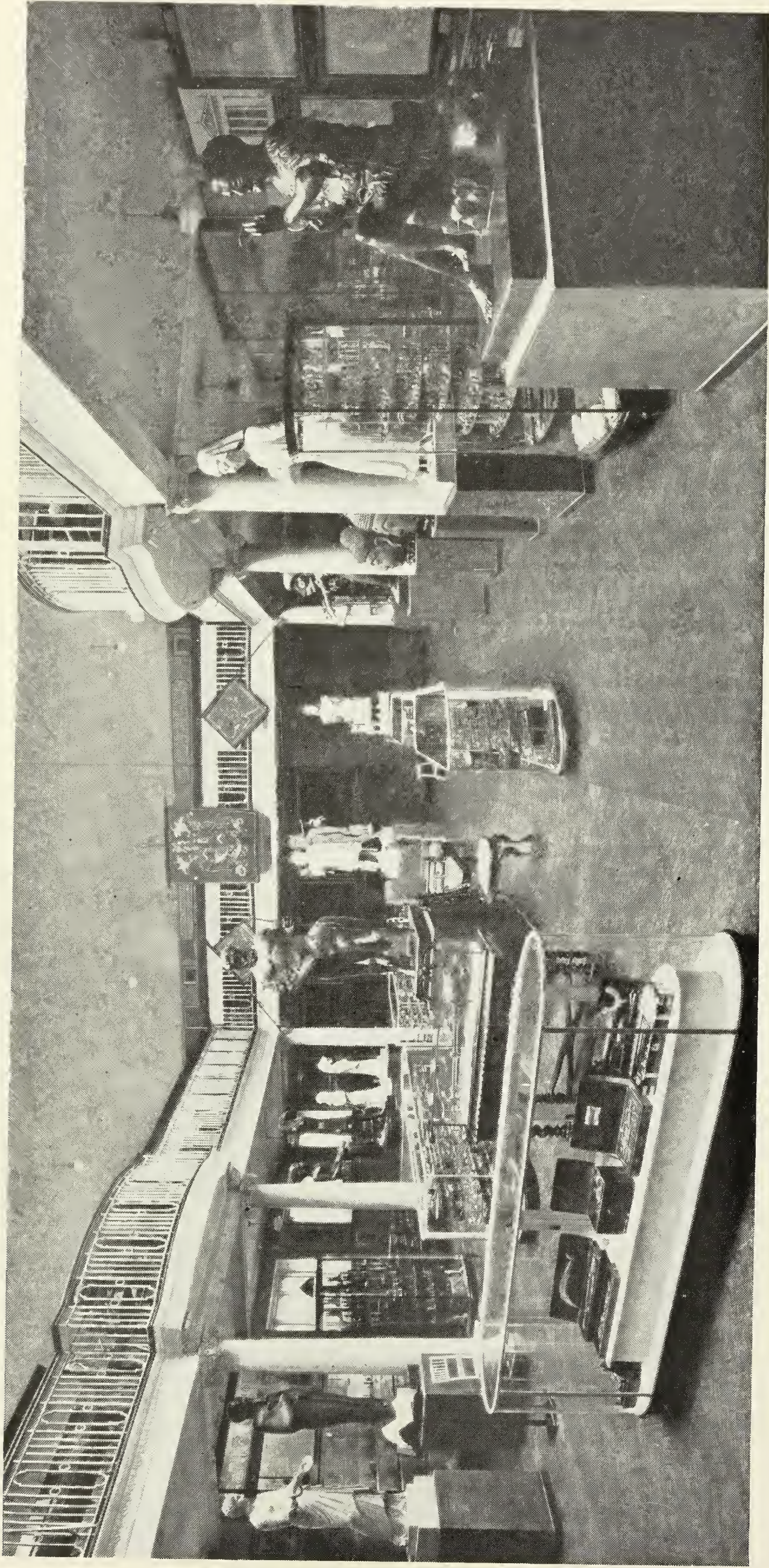




ANOPHELES WELLCOMEI

A new species secured during mosquito work on  
the Nile by the Director of The Wellcome Tropical  
Research Laboratories, Khartoum.





HALL OF STATUARY AT THE WELLCOME HISTORICAL MEDICAL MUSEUM, LONDON (ENG.)  
Before construction of the new Research Institution Building



FOUNDED IN 1913

THE WELLCOME  
HISTORICAL MEDICAL MUSEUM

183, EUSTON ROAD, LONDON, N.W.1

SIR HENRY WELLCOME, LL.D., F.S.A., F.R.S.

*DIRECTOR*

L. W. G. MALCOLM, M.Sc., Ph.D., F.R.S.E.

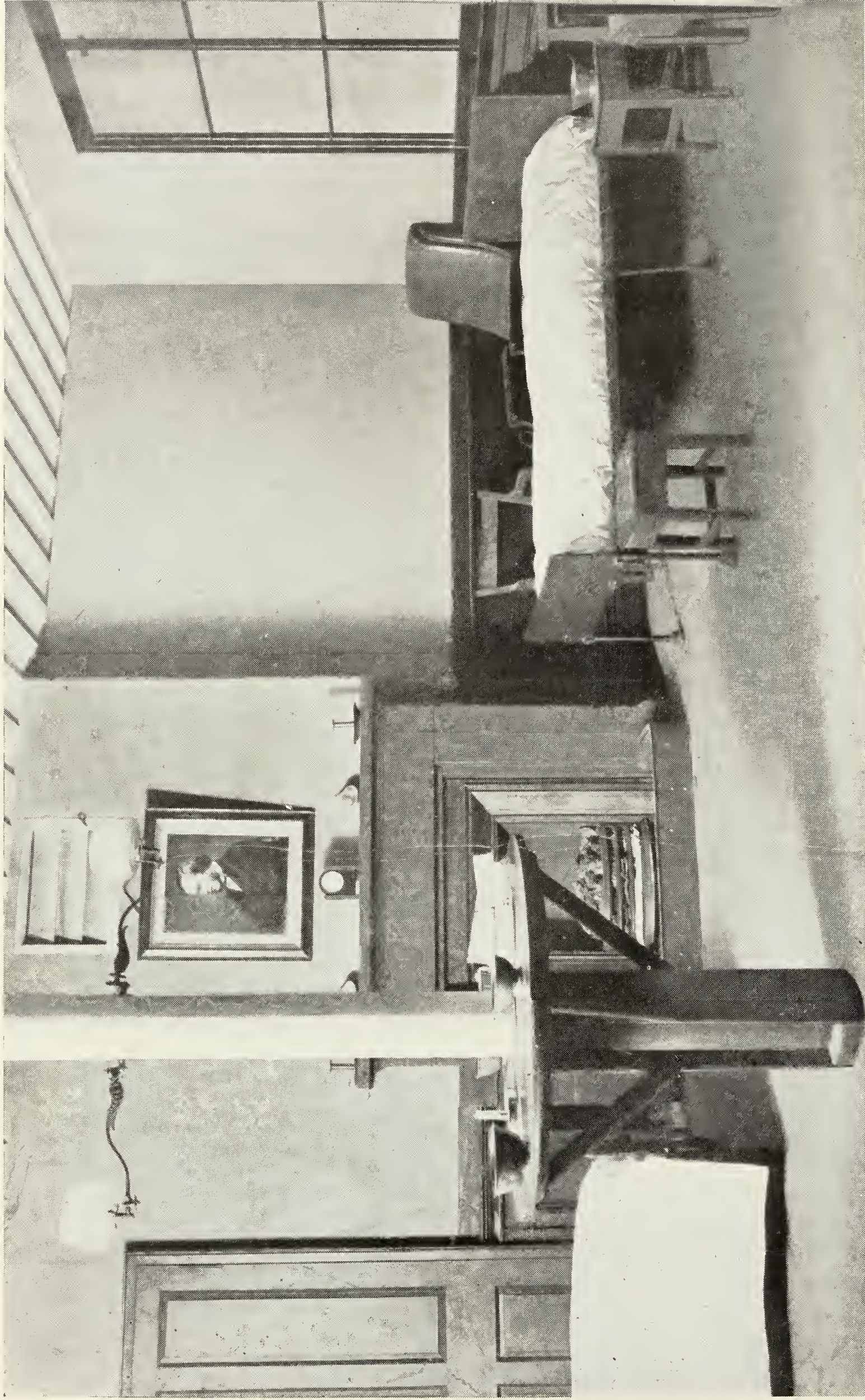
*CONSERVATOR*

This Museum consists of extensive collections of rare instruments, appliances and other historical objects, also pictures, sculpture, early manuscripts and printed books, etc., illustrating the evolution and practice of medicine, surgery and allied sciences throughout the world from prehistoric times, and includes a section dealing with primitive medicine and surgery amongst the savage and semi-civilised peoples of the world.

One of the central aims of the Museum is to connect the links in the chain of human experience and living things from the very beginning and to trace the genesis of the many branches of the healing art and their development, this undertaking being illustrated by instruments, appliances and other objects connected therewith.

MEMORIAL COLLECTIONS. It is an important feature in the plans of this Museum to preserve the relics and other objects, manuscripts, drawings, etc., associated with workers who have made history by their discoveries, inventions and improvements in the various departments of medicine and allied sciences. It is the special aim and purpose to hand down to posterity the names and records of pioneers who, in the course of time, might be forgotten,





A SECTION OF THE ORIGINAL LISTER WARD NOW AT THE WELLCOME HISTORICAL MEDICAL MUSEUM  
183, EUSTON ROAD, LONDON (ENG.)



thus rendering honour to whom honour is due. Such relics, etc., when placed in this Museum, form a permanent memorial and tribute to the work and achievements of those who have distinguished themselves in various realms of science in past years.

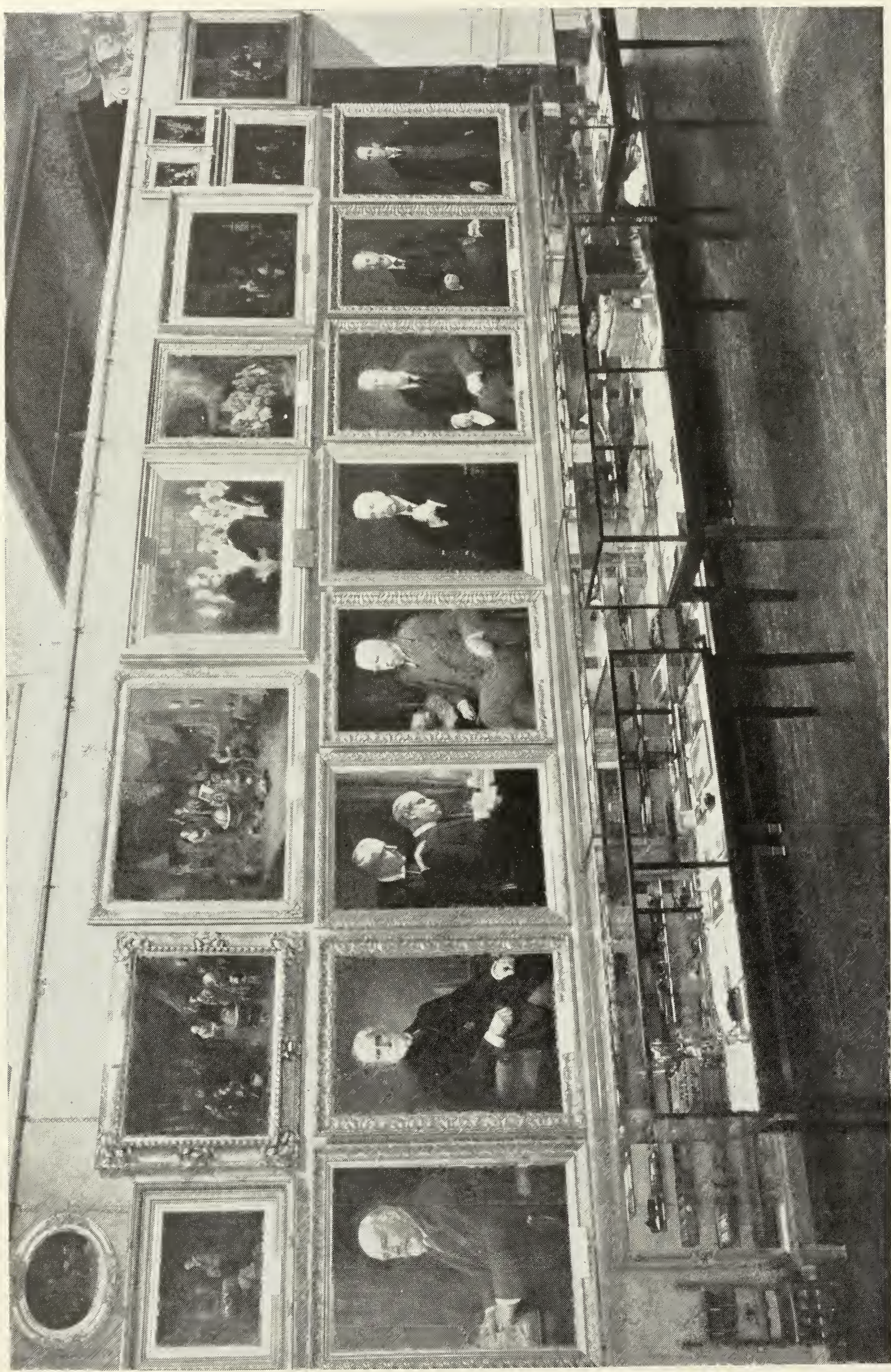
Many of these collections have been presented to the Museum by the families, executors, friends and admirers of such workers. Gifts or loans of this description will always receive the greatest possible care and be permanently preserved. Special Sections are devoted to such MEMORIAL COLLECTIONS. Amongst these collections are the following :—

The JENNER COLLECTION. An extensive collection of manuscripts, paintings, sculpture, drawings, instruments, personal relics, etc., of Dr. EDWARD JENNER, connected with his development of vaccine treatment of smallpox.

THE LISTER COLLECTION. An extensive collection of appliances, chemical reagents and apparatus, and various other materials originated and used by LORD LISTER in the development of his methods of antiseptic surgery, as practised by him in the Lister Ward of the GLASGOW INFIRMARY and elsewhere. A section of the actual ORIGINAL LISTER WARD, transferred from the Glasgow Infirmary when it was dismantled, is now erected in The Wellcome Museum, together with the fittings and equipment (all being the original material), including Lister's portable experimental research laboratory containing the remainders of his reagents with which he carried out his original antiseptic experiments.

The importance of Museums as an integral part of teaching is now being more fully recognised by physicians





SECTION OF PORTRAIT GALLERY AT THE WELLCOME HISTORICAL MEDICAL MUSEUM  
LONDON (ENG.)

Before construction of the new Research Institution Building



and surgeons. By practical, scientific classification and systematic grouping of objects, it is the aim and purpose to make The Wellcome Historical Medical Museum of distinct educational value to research workers, students and others interested in the subjects with which it deals.

## PUBLICATIONS

DE ARTE PHISICALI ET DE CIRURGIA of Master John Arderne, Surgeon of Newark, dated 1412. Translated by Sir D'Arcy Power, K.B.E.

MAGISTRI SALERNITANI NONDUM COGNITI: A Contribution to the History of the Medical School of Salerno, by Doctor Pietro Capparoni.

THE ICONOGRAPHY OF ANDREAS VESALIUS, Anatomist and Physician. 1514-1564. By M. H. Spielmann, F.S.A.

THE LISTER CENTENARY EXHIBITION, 1927, SOUVENIR AND HANDBOOK OF. To commemorate Lister's discovery of antiseptis.

THE HICKMAN CENTENARY EXHIBITION, 1930, SOUVENIR AND HANDBOOK OF. To commemorate Hickman's discovery of the principles of anæsthesia.

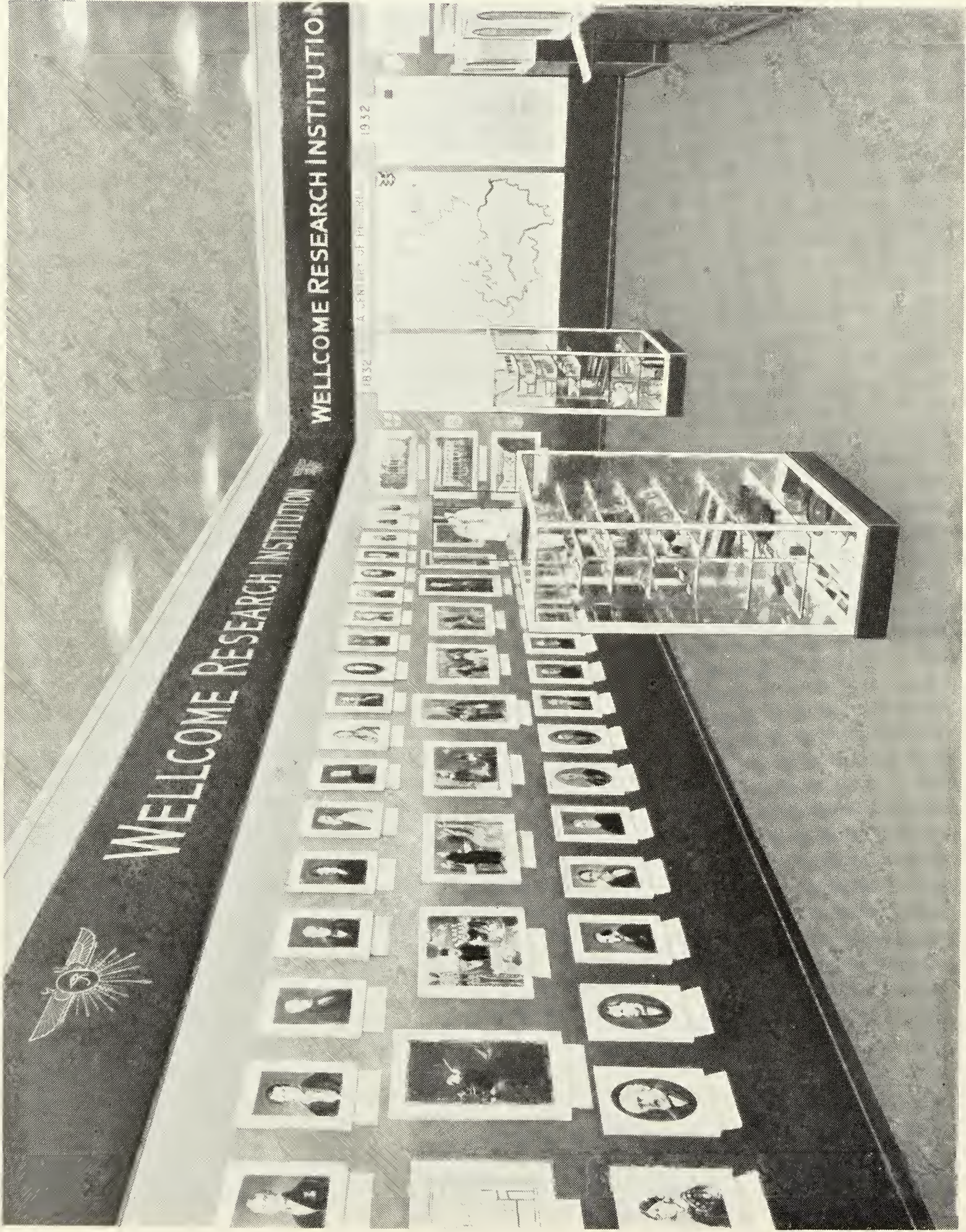
HISTORY OF SCOTTISH MEDICINE. By John D. Comrie, M.A., B.Sc., M.D., F.R.C.P., Lecturer on History of Medicine in the University of Edinburgh.

CINCHONA TERCENTENARY CELEBRATION AND EXHIBITION, SOUVENIR OF, 1930.

RECENT ADVANCES IN CHEMOTHERAPY. By G. M. Findlay, O.B.E., Sc.D. (Edin.), M.D.

Etc., Etc.





WELLCOME  
RESEARCH  
INSTITUTION

PART OF THE  
EXHIBIT OF  
THE WELLCOME  
HISTORICAL  
MEDICAL  
MUSEUM

GROUP F  
BOOTH 10  
HALL OF SCIENCE



NOTABLE EXHIBITS FROM  
THE WELLCOME  
HISTORICAL MEDICAL MUSEUM  
AT THE  
CHICAGO EXPOSITION, 1934  
HALL OF SCIENCE  
GROUP F—BOOTH 10

DIORAMAS, ACTION PICTURES, PORTRAITS, HISTORICO-MEDICAL EXHIBITS, ETC.

The main plan of the exhibits provided by this Research Museum is to illustrate specific events in British Medical and Surgical history.

DIORAMAS

- 1-3. The origination and development of anæsthesia.  
Hickman (1824), Simpson (1847), Liston (1847).
- 4, 5. The origination and development of antiseptic surgery. Lister (1867), Watson Cheyne (1880).
6. The origination of scientific vaccination—Jenner (1796).
7. Origination of quarantine (Early XIX<sup>th</sup> Century).
- 8, 9. Revolution in hospital and nursing practice—Florence Nightingale (1854).
10. Electricity and Medical Practice—Michael Faraday (1831).
11. Radiography—Sir William Crookes (1875).
12. Pioneer Tropical Medicine—Sir Patrick Manson (*known as "Father of Tropical Medicine"*) (1877).



## ACTION PICTURES

1. Anglo-Saxon Surgery.
2. Anglo-Norman Medicine.
3. Roger Bacon (1266).
4. John Banister delivering the Visceral Lecture (1581).
5. William Gilbert demonstrating the magnet to Queen Elizabeth (1598).
6. Harvey demonstrating circulation of blood to Charles I.
7. Wren demonstrating intravenous injection (1656).
8. Priestley — discoverer of dephlogisticated air (oxygen). Threatened by mob (1791).
9. Jenner's first vaccination (1796).
10. Lord Kelvin—conservation of energy (1852).
11. Sir William Perkin—discovery of aniline dye (1856).
12. Sir William Osler, Regius Professor of Medicine, University of Oxford.

## PORTRAITS

British leaders in Medicine and Surgery during the past hundred years :—

JOHN BELL (1763–1820).—One of the most skilful surgeons of his generation.

SIR ASTLEY PASTON COOPER (1768–1841).—Master in the surgery of hernia, fractures and dislocations.

THOMAS YOUNG (1773–1829).—Father of physiological optics.

SIR CHARLES BELL (1774–1842).—Surgeon, physiologist, neurologist. Discovered Bell's nerve (1829).



- SIR HUMPHRY DAVY (1778-1829).—Discovered anæsthetic properties of nitrous oxide (1799).
- GEORGE JAMES GUTHRIE (1785-1856).—Leading surgeon in Napoleonic wars.
- JOSEPH HODGSON (1788-1869).—First to describe Hodgson's disease (1815).
- RICHARD BRIGHT (1789-1858).—Brilliant research worker. His name is associated with "Bright's disease" (1827).
- THOMAS ADDISON (1793-1860).—First to employ static electricity in spasmodic disease (1837). His name is associated with "Addison's disease" (1849).
- ROBERT LISTON (1794-1847).—Brilliant British surgeon. First to employ ether as an anæsthetic in England (1846).
- ROBERT JAMES GRAVES (1796-1853).—Founder of Park Street School of Medicine, Dublin (1821).
- SIR ROBERT CHRISTISON (1797-1882).—Pioneer of scientific toxicology.
- JAMES SYME (1799-1870).—One of the first to employ anæsthetic ether in Europe (1847) and to adopt Lister's antiseptic methods.
- SIR EDWIN CHADWICK (1800-1890).—Father of modern Sanitary Science in Great Britain.
- SIR RICHARD OWEN (1804-1892).—Conservator of Royal College of Surgeons Museum. First to describe *Trichina spiralis*, etc. (1835).
- WILLIAM FARR (1807-1883).—Inventor of Farr's Law (1866).
- SIR WILLIAM FERGUSSON (1808-1877).—Founder of conservative surgery.



CHARLES ROBERT DARWIN (1809–1882).—Pioneer of general biology, comparative physiology and pathology. Established theory of evolution (1838).

SIR JAMES YOUNG SIMPSON (1811–1870).—First to use chloroform in midwifery (1847). Introduced acupuncture (1850–1864), the uterine sound (1843), etc.

SIR JAMES PAGET (1814–1899).—Pioneered research on tumours, clinically and microscopically (1851).

SIR WILLIAM JENNER (1815–1898).—Physician. Specialist in respiratory and skin diseases, fevers and rickets. Distinguished typhus from typhoid fever (1847).

SIR WILLIAM GULL (1816–1890).—Physician. Made many important contributions to medical knowledge, particularly in respect to locomotor ataxia (1856–1858), intermittent hæmoglobinuria (1866), myxœdema (1873), and nervous disorders (1852).

SIR JOHN SIMON (1816–1904).—Epidemiologist. One of the foremost sanitarians of the nineteenth century.

SIR THOMAS SPENCER WELLS (1818–1897).—Gynæcologist. Standardised the operative technique for ovariectomy (1858–1864).

EDMUND A. PARKES (1819–1876).—Epidemiologist. Occupied first chair of Hygiene in British Army Medical School, 1860.

FLORENCE NIGHTINGALE (1820–1910).—Pioneer of modern nursing.

SIR SAMUEL WILKS (1824–1911).—Physician. Made many contributions to medical knowledge, particularly in regard to Bright's, Addison's and Hodgkin's diseases. Introduced the term "enteric fever."



THOMAS HENRY HUXLEY (1825–1895).—Protagonist of Charles Darwin. Contributed greatly to scientific knowledge by researches and biological discoveries.

SIR ANDREW CLARK (1826–1893). Physician. Specialised in the study of the respiratory and digestive systems and made many valuable contributions in the fields of medicine associated with them.

LORD LISTER (1827–1912).—Surgeon. Founder of anti-septic surgery (1867).

SIR BENJAMIN WARD RICHARDSON (1828–1896).—Physician and medical historian. Specialised in public health and dietetics ; published researches on alcoholism.

SIR JONATHAN HUTCHINSON (1828–1913).—One of the most versatile surgeons of the nineteenth century. President of five of the most important Medical Societies in London. Brilliant diagnostician, especially in surgery, ophthalmology, dermatology and syphilis. Discovered syndromes.

GEORGE H. HARLEY (1829–1896). Physician. Made intensive researches on functions of kidneys, liver and digestive system. Received world-wide recognition for his researches on pepsin. Appointed, at age of 26, first Professor of Practical Physiology in England at University College, London. Invented the Harleian binocular microscope (*ca.* 1870).

SIR THOMAS CLIFFORD ALLBUTT (1836–1925).—Regius Professor of Physic, University of Cambridge. Made many valuable contributions on circulation of blood (1915). Literary stylist.

SIR DAVID FERRIER (1843–1928).—Surgeon. Re-charted cerebral areas (1872–1876) ; recognised as expert on brain functions.



- ROBERT LAWSON TAIT (1845–1899).—Gynæcologist. Distinguished surgeon ; introduced hepatotomy (1880) and many valuable obstetric aids.
- SIR WILLIAM RICHARD GOWERS (1845–1915).—One of the founders of neurology. Distinguished by his work on minute anatomy of nervous system. Invented the hæmoglobinometer (1878).
- SIR THOMAS LAUDER BRUNTON (1844–1916).—Distinguished physiologist and pharmacologist. Specialised in cardiac effect of therapeutic agents.
- SIR JAMES MACKENZIE (1853–1925).—Pioneer in graphic study of cardiac disorders. Invented the polygraph (1892).
- SIR ROBERT JONES (1855–1933).—Leading authority of British and American orthopædic services during the Great War.
- SIR WILLIAM J. R. SIMPSON (1855–1931).—One of the world's leading authorities on tropical medicine and hygiene. Member of Government Commission (1900) to investigate tropical disease, also of the Yellow Fever Commission, West Africa ; of the Enteric Fever Commission, South Africa ; and of other Commissions to Hong Kong, East Africa, the Gold Coast and South Africa.
- SIR VICTOR HORSLEY (1857–1916).—Pioneer in experimental and neurological surgery.
- SIR FREDERICK N. MOTT (1859–1926).—Neurologist. Authority on degeneration of the neuron (1900), and “ shell-shock.”
- SIR NORMAN MOORE (1847–1922).—Physician. Leader in the history of medicine. Research worker and writer on clinical medicine.



SIR JAMES CANTLIE (1851-1926).—Surgeon. Prime mover in organisation of London School of Tropical Medicine (1897). Specially interested in ambulance and Red Cross work. Founded the College of Ambulance (1914).

SIR HENRY MORRIS (1844-1926).—Surgeon. In addition to his work as teacher in Practical Surgery at Middlesex Hospital, he was known as a medical educationalist.

J. EVERETT DUTTON (1874-1905).—In 1901 discovered *Trypanosoma gambiense* in the blood of man. It was afterwards shown that the tsetse fly is the vector of the disease, and that Gambia fever, discovered by Dutton and Todd in 1902, and sleeping sickness, are two stages of the same infection.

SIR ANDREW BALFOUR (1873-1931).—Pioneer in Tropical Medicine and Research. Director of The Wellcome Tropical Research Laboratories, Khartoum, Africa, later of The Wellcome Bureau of Scientific Research, London, and finally of The London School of Hygiene and Tropical Medicine.

## HISTORICO - MEDICAL EXHIBITS

AN EXHIBITION CASE containing examples of Historical Surgical Instruments from the days of the flint knife to the XVIIIth century.

AN EXHIBITION CASE containing a selected series of Pharmaceutical products from antiquity to the present time.

MEDICAL MAP OF LONDON (1832-1932) and statistics showing the growth of the Public Health Services in London over 100 years.

LEADING MEDICAL INSTITUTIONS IN LONDON.



# GENERAL INDEX

Page numbers of Illustrations are given in heavy-faced figures

	PAGE		PAGE
Abdominal Surgery, Gas-		Banister, John ...	80
Gangrene Antitoxin em-		Benjafield, J. D. ...	39
ployed in ...	48	Bilharziasis Exhibit ...	69
Admiralty, The ...	37	Biological Assay, Illustrated	50
Allenby, General ...	33	Braxy ...	49, 50
American Wormseed Oil		British Army Medical Advi-	
( <i>see</i> <i>Chenopodium</i> )		sory Committee ...	32
Amoebicidal Agents ...	54	British Red Cross Society...	37
Anæsthesia, Origination and		Bruce, Sir David ...	67
Development of... ..	79	Bureau of Scientific Re-	
Anglo-Norman Medicine ...	80	search 13, 24, 25, 27, 29, 40, 42	
Anglo-Saxon Surgery ...	80	Notable Exhibits from	42
Aniline dye, Discovery of...	80	Placed at Disposal of	
<i>Anopheles costalis</i> , Wax		British War Office...	32
Models of ...	58, 65	Research Laboratories	29
<i>Anopheles funestus</i> ...	45	Scientific Publications	
<i>Anopheles wellcomei</i> ...	71	and Research Re-	
Anthelmintics ...	54	ports ...	40
Anti-diphtheritic Sera ...	48	Tutorial Classes ...	33
Anti-Gas-Gangrene Anti-			
toxin ...	50	Canine Distemper ...	49, 50
Anti-leprotic Agents ...	54	Canine Jaundice ...	49, 50
Anti-malarial Agents ...	53	Capparoni, Pietro ...	77
Antimonial Substances ...	54	Chalmers, A. J. ...	29
Antiseptic Surgery, Origina-		Chamberlain, Rt. Hon.	
tion and Development of	79	Neville ...	59
Anti-tetanic Serum, Use of	65	Chaulmoogra ...	54, 69
Antwerp, Maritime and		Chemical Research Labora-	
Colonial Exhibition ...	63	tories ... 13, 25, 27, 51, 52	
Archibald, Major R. G. ...	29	Active Principles	
Army Medical Motor Field		Isolated ...	51
Laboratory ...	36, 38, 39	Notable Exhibits from	53
Artemisia, Species of ...	54	Scientific Publications	
Ascaridole ...	54	and Reports ...	53
		Chemotherapy, Achieve-	
Bacillary White Diarrhœa		ments in ...	54
in Poultry ...	50	“Chemotherapy, Recent	
<i>Bacillus pestis</i> ...	69	Advances in” (Findlay)	77
Bacon, Roger ...	80	Chenopodium (American	
Bacot ...	69	Wormseed Oil), Re-	
Bacteriology, Department of	43	searches on ...	54
Balfour, Sir Andrew, 13, 29, 31,		Cheyne, Watson ...	79
32, 33, 35, 37, 39, 85		Chicago Exposition, Key	
		Plan to part of ( <i>facing page 1</i> )	



GENERAL INDEX—*continued*

	PAGE
Christopherson, J. B. ...	69
"Cinchona Tercentenary Celebration and Exhibi- tion, Souvenir of, 1930"	77
Comrie, John D. ...	77
Cowans, Major-General Sir John ...	37
Crookes, Sir William ...	79
Dalby, Prof. W. E....	37
Dale, H. H. ...	48
Daukes, S. H. ...	59
"De Arte Phisicali et de Cirurgia" ...	77
Differentiation of Bacterial Types ...	43
Digitalis, Standardisation of	49
Dioramas Exhibited by Historical Medical Museum ...	79
Diphtheria Antitoxin ...	50
Disease, Survey of Human	59
Distemper, Canine...	49, 50
Dobell, Clifford ...	37
Domestic Animals, Treat- ment of Diseases of ...	49
Donovan, Colonel ...	67
Dutton, J. Everett ...	67
Dysentery, Alleged Cures for	54
Egyptian Public Health Commission ...	32
Electric Charge in Certain Immunity Reactions ...	43
Emetic Drugs, Exhibit of...	54
Engraved Portraits ...	78
Entomological Field Labor- atories ...	14, 23, 25, 27, 44
Notable Exhibits from	45
Entomology and Proto- zoology, Departments of	43
'Ergamine' (Histamine) ...	48
Ergot, Standardisation of...	49
Ergotoxine Salts ...	50
Experimental Pathology, Department of ...	43
Faraday, Michael ...	79

	PAGE
Field Laboratory, Medical Motor ...	37, 38, 39
Findlay, G. M. ...	77
Flacourtiaceous Seeds ...	54
Floating Research Labora- tory ...	33, 34
Fowl Pox ...	50
Furley, Sir John ...	37
Gas-Gangrene Antitoxin, Production of ...	48
Gilbert, William, Demon- strating Magnet ...	80
<i>Glossina palpalis</i> , Wax Models of ...	56
Gordon Memorial College, Khartoum ...	29
Gorgas, General ...	31
Hall of Statuary, Historical Medical Museum ...	72
Harvey Demonstrating Cir- culation of the Blood ...	80
Helminthology, Department of ...	42
Henry, T. A. ...	51
Hickman ...	79
"Hickman Centenary Exhi- bition Souvenir and Handbook" ...	77
Histamine ( <i>see</i> 'Ergamine')	
Historical Medical Museum ...	14, 25, 27, 73
Action Pictures ...	80
Dioramas ...	79
Hall of Statuary ...	72
Historico-Medical Ex- hibits ...	85
Memorial Collections...	73
Notable Exhibits from	79
Portraits of British Leaders in Medicine and Surgery During the Last Hundred Years ...	80-85
Publications ...	77
Part of Exhibit of ...	78
Section of Lister Ward	74



	PAGE		PAGE
Historical Medical Museum—		MacDonald, Rt. Hon. Sir	
Section of Portrait		Claude ... ..	37
Gallery ... ..	76	MacGregor, Malcolm E. ...	40
Hall of Statuary ...	72	“ Magistri Salernitani Non-	
“ History of Scottish Medi-		dum Cogniti ” ... ..	77
cine ” (Comrie) ... ..	77	Malaria Enquiry Laboratory	35
Hook-worm Disease ... ..	54	Investigation in Mau-	
“ Human Intestinal Pro-		ritius ... ..	45
tozoa in the Near East ”	35	Reduction in Malaria	65
Hydnocarpus, Species of ...	54	Malaria Exhibit ... ..	65
Hygiene Demonstration at		“ Malaria in Macedonia ”	
Wembley... ..	61	(Wenyon) ... ..	35
“ Iconography of Andreas		Malcolm, L. W. G. ... ..	73
Vesalius, The ” ... ..	77	Manson, Sir Patrick	67, 79
Ipecacuanha, Alkaloids of...	54	Maritime and Colonial	
Jenner, Edward ... ..	75, 79	Exhibition, Antwerp ...	63
Collection ... ..	75	Mauritius, Health of ...	39
Kala Azar, Reduction in		May, Surgeon-General Sir	
Death-rate ... ..	65	Arthur ... ..	37
Exhibit ... ..	67	Medical Advisory Com-	
Kelvin, Lord ... ..	80	mittee ... ..	32, 33
Keogh, Surgeon - General		“ Medical Entomology of	
Sir Alfred ... ..	37	Salonica ” (Balfour) ...	33
Key Plan to Part of Chicago		“ Medical History of the	
Exposition ( <i>facing page</i> 1)		War ” ... ..	35
Kurchi Bark, Alkaloids of	54	Medical Motor Field Labor-	
Lamb Dysentery ... ..	49, 50	atory ... ..	36, 37, 38, 39
Leiper, R. T. ... ..	69	“ Memoranda on Some	
<i>Leishmania donovani</i> ...	67	Medical Diseases in the	
Leishman, Sir William ...	67	Mediterranean War Area”	
Leper Colony ... ..	69	(Balfour) ... ..	33
Leprosy Exhibit ... ..	67	Metropolitan Water Board	
Leukæmia ... ..	66	of London ... ..	43
Lister, Lord ... ..	75, 77, 83	Model of Wellcome Research	
Collection ... ..	75	Institution ... ..	41
“ Lister Centenary Exhibi-		Montagu of Beaulieu, Rt.	
tion, 1927, Souvenir and		Hon. Lord ... ..	37
Handbook of ” ... ..	77	Mosquitoes, Safety Con-	
Lister Ward, Section of		tainers for Infected ...	45
Original ... ..	74	Moynihan, The Rt. Hon.	
Liston ... ..	79, 81	Lord ... ..	7, 8, 9, 13
Liverpool School of Tropi-		Museum of Medical Science	
cal Medicine ... ..	63	14, 25, 27, 59	
		Aplastic Anæmia ... ..	64
		Diseases of the Blood-	
		forming Organs ...	62
		Endocrine and Food-	
		deficiency Diseases	60



GENERAL INDEX—*continued*

	PAGE
Museum of Medical Science—	
Leukæmia ... ..	66
Nephritis ... ..	70
Notable Exhibits from	65
Nephritis ... ..	70
Nightingale, Florence	79, 82
O'Brien, R. A. ... ..	47
O'Connor, F. W. ... ..	35
Organo-metallic Com- pounds, Work on	53, 54
Osler, Sir William ... ..	80
Paris Colonial Exhibition, British Health Section at	63
Pathology, Experimental, Department of ... ..	43
Pellagra Investigation Com- mittee ... ..	31
Perkin, Sir William ... ..	80
Pharmacological Depart- ment of Physiological Re- search Laboratories ... ..	48
Pharmacological Exhibits	50
Phenols Active in Hook- worm Disease ... ..	54
Photomicrographs in Colour ... ..	57, 67
Physiological Research Laboratories 13, 25, 27,	47
Main Research Building	46
Notable Exhibits from	50
Pharmacological De- partment ... ..	48
Physiological Standar- disation of Medicinal Products ... ..	49
Pioneer Investigations	49
Scientific Publications and Reports ... ..	49
Veterinary Research Work ... ..	50
Veterinary Section ... ..	49
Pioneer Work in Concen- trated Sera ... ..	48
Plague, Reduction in In- cidence of ... ..	65
Exhibit ... ..	69

	PAGE
Plan (Key) to part of Chi- cago Exposition ( <i>facing page 1</i> )	
Poultry, Bacillary White Diarrhœa in ... ..	50
Poultry, Diseases of ... ..	49
Power, Frederick B. 51, 68,	69
Power, Sir D'Arcy ... ..	77
Priestley Threatened by Mob	80
Protozoal Diseases, Treat- ment of ... ..	53
Puerperal Septicæmia, Gas- Gangrene Antitoxin em- ployed in ... ..	48
Quarantine, Origination of	79
Quinine ... ..	53
Rat Flea ( <i>Xenopsylla</i> <i>cheopis</i> )	69
Research Reports of Tropi- cal Research Labora- tories, Khartoum ... ..	42
Rift Valley Fever, Speci- mens and Illustrations of	43
Robertson, John ... ..	37
Rogers, Sir Leonard ... ..	69
Ross, Sir Ronald ... ..	67
Royal Horticultural Society's Gardens ... ..	45
St. John Ambulance Association ... ..	37
Salonica Expeditionary Force ... ..	35
Samson, Louis ... ..	31
Santonin, Species of Arte- misia examined for ... ..	54
Scarlet Fever, Decline in Death-rate from ... ..	65
<i>Schistosoma mansoni</i> ... ..	69
"Scottish Medicine, His- tory of" (Comrie) ... ..	77
Section of Portrait Gallery at Historical Medical Museum ... ..	76
Sera, Concentrated ... ..	50
Sera, Prophylactic for Veterinary Profession ... ..	49

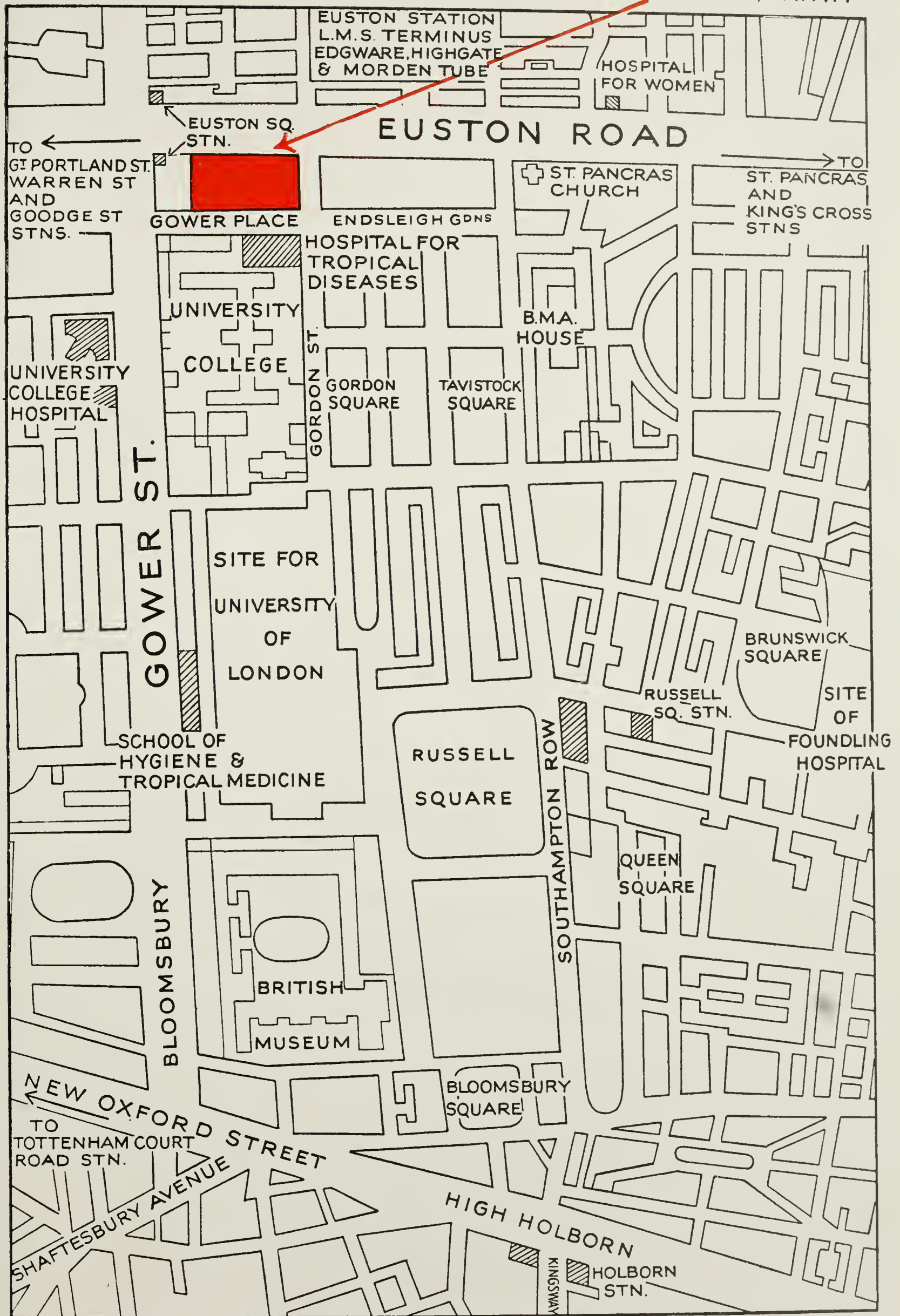


GENERAL INDEX—*continued*

	PAGE		PAGE
Sera, Standardisation of ...	49	Tuberculosis, Decline in	
Simpson, Sir James Y. ...	82	Death-rate from... ..	65
Simpson, Sir William ...	69	Typhoid Fever, Decline in	
Sleeping Sickness Demon-		Death-rate from... ..	65
strated ... ..	43	Typhus, Decline in Death-	
Exhibit ... ..	67	rate from... ..	65
Reduction in ... ..	65	'Tyramine'... ..	48
Smallpox, Decline in Death-			
rate from ... ..	65	Undulant Fever, Reduction	
Smallpox, Vaccine Treat-		in ... ..	65
ment of ... ..	75		
Spielmann, M. H. ... ..	77	Vaccination... ..	79
Staphylococcus Antitoxin	50	Jenner's First... ..	80
Statistical Devices, Illu-		Veterinary Research Work	
minated ... ..	65	carried out at Physio-	
Stevenson ... ..	35, 37	logical Research Labora-	
Strophanthus, Standardisa-		tories ... ..	50
tion of ... ..	49		
		"War Against Tropical	
Tapeworm, Fish ( <i>Diphyllo-</i>		Disease" (Balfour) ...	31
<i>bothrium latum</i> ) ... ..	42	War Ambulance Construc-	
Tapeworm of the Mouse		tion Commission... ..	37
( <i>Hymenolepis nana</i> ) ... ..	42	War Office ... ..	37
Tapeworms ( <i>Cestoda</i> ) ... ..	42	Watson Cheyne ... ..	79
Tetanus Antitoxin... ..	50	Wellcome, Sir Henry, 10, 11, 12,	
Reduction of Tetanus		16, 21, 29, 33, 37, 73	
during Great War ... ..	65	Wellcome Research Institu-	
Supplied for the Great		tion, The ( <i>facing Title page</i> )	
War ... ..	47	Architectural Details... ..	25
Tetanus in Horses ... ..	50	Chemical Research	
"Totaquina" ... ..	54	Laboratory, A ... ..	52
"Transactions of the Royal		Main Stairway ... ..	3
Society of Tropical Medi-		Main Hall ... ..	28
cine and Hygiene" ... ..	31	Notable Exhibits from	41
Treves, Sir Frederick ... ..	37	Part of Exhibit ... ..	55
"Tropical Disease, War		Plan of Exhibit at	
Against" (Balfour) ... ..	31	Chicago Exposition	1
Tropical Health Exhibit,		Wembley Exhibitions ... ..	61
Antwerp ... ..	63	Wenyon, C. M. ....	33, 35, 40
Tropical Research Labora-		Wren Demonstrating Intra-	
tories ... ..	13, 29, 33	venous Injection... ..	80
Exhibits from... ..	41		
<i>Trypanosoma gambiense</i> ... ..	67	<i>Xenopsylla cheopis</i> (Rat	
Tsetse-fly ( <i>Glossina palpalis</i> )		Flea) ... ..	69
Demonstrated ... ..	43		
Tsetse-fly, Wax Models of		Yellows in Dogs (Canine	
56, 57		Jaundice)... ..	50



THE WELLCOME RESEARCH INSTITUTION  
183-193, EUSTON ROAD, N.W.1



Plan showing location of THE WELLCOME RESEARCH INSTITUTION in relation to other Institutions, Museums, etc.











